

ABORIGINAL NAMES AND UTILIZATION OF THE FAUNA IN THE EYREAN REGION

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Under the auspices of the Board for Anthropological Research, University of Adelaide, expeditions visited Pandi on the lower Diamantina, adjacent to the Queensland border, in 1934, and the northern Flinders Ranges in 1937. Investigations regarding blood-grouping of the full-blood aborigines were published by Cleland and Johnston in 1936 and 1938 respectively. Opportunity was taken in each case to ascertain the uses made of the local flora by the natives, the results being recorded by the same authors in 1943 and 1939 respectively. In company with Professor J. B. Cleland, some native names of species of animal life were obtained on each occasion. Further investigation has revealed that much published information is available but is widely scattered in literature. The present paper is an attempt to bring it together under a zoological classification.

The Eyrean drainage system occupies a very much greater expanse of territory than that at present under consideration. Very little of the water reaches Lake Eyre now, because of the very high evaporation rate (about 100 inches per year), the low annual rainfall (about five inches, received very irregularly), the slight fall of the land, and the increasing aridity. The region bordering on Lake Eyre (Katitandra of the natives) has been described by Gregory (1906) as "the Dead Heart of Australia." The drainage system includes the huge area drained by the Bareoo (Cooper's Creek), Diamantina (Kuyuna of the Wonkanguru), Georgina, Finke, and Alberga, as well as those streams in Central Australia which trend easterly and south-easterly to become lost in the deserts and sandhills before they can reach their original outlet. This immense region has a length of about 650 miles (from the Barelay Tableland to the northern end of the Flinders Ranges), and a breadth of about 1,000 miles (from the Musgrave and Macdonnell Ranges to the Great Dividing Range in Queensland). It is proposed to restrict the paper to a consideration of the region lying between 137° and 143° E, and between 24° and 33° S. This will exclude the region lying north of Bedourie on the Georgina, but will include the Flinders Ranges and adjacent areas as far south as the head of Spencer Gulf. It will include the far north-western portion of New South Wales (west of the Darling) and the adjacent part of Queensland. Just beyond the eastern limit of the restricted area is the eastern limit of those tribes which practise circumcision, while the eastern boundary of the tribes which practise subincision almost bisects it in a north-south direction, such distribution being indicated by Tindale (1940) in his map of Australian tribal boundaries. A partial survey of the ecology of portion of the region has been published by Andrewartha (*Trans. Roy. Soc. S. Aust.*, **64**, 1940).

The north-eastern corner of South Australia has been traversed by several expeditions:—Captain Sturt, Sir Thomas Mitchell, Burke and Wills, the various expeditions sent out to relieve the last-named two, as well as parties concerned with surveying and with pastoral possibilities. The South Australian Museum, in 1916, sent out a small party under E. R. Waite to collect plant and animal material in the Strzelecki region, the various reports by Waite, White, Rainbow, Zietz, Black, MacCulloch and Lea being published in 1917. Gregory (1906) was more particularly interested in the geography and geology of the vicinity of Lake Eyre. A succession of good seasons following the flooding of lower Cooper's Creek led

to the establishment of Lutheran missions (abandoned some years later, and now represented by ruins) in the Dieri country, and a few police stations were organised there as well as to the north. It is to the missionaries and some of these police officers that much of our knowledge of the natives of the region is due, and much is still awaiting publication, being contained in the Reuther manuscripts which are in the possession of the South Australian Museum. The police officers concerned were Gason, Wells and Aiston. Strehlow, who published a monumental work on the Aranda people, began his anthropological work at one of the Dieri mission stations, and Siebert who collaborated with Howitt, was on its staff, as also was Reuther. Part of the manuscript of the last-named (that relating to the toas or direction-indicators associated with local myths concerning the wanderings of ancestral or mura-mura beings) was worked up by Stirling and Waite and published in 1919.

The most important anthropological work relating to the region near Lake Eyre was that published by Gason (1874; republished in 1879 and 1886), and by Howitt (1885; 1891; 1904). The latter was interested especially in the tribal organisation, and some of his papers (1903) were written in collaboration with Siebert. Horns and Aiston (1924) dealt in a more popular way with the Wonganuru people whose territory adjoined that of the Dieri. Elkin (1937; 1938) published papers relating to these regions but did not concern himself with our present subject, whereas there are many references to native names and utilization of animals in their tribal economic and social organisation contained in the other works mentioned. M. Howitt (1902) and Fry (1937) published several local legends. Gatti's Dieri-Italian vocabulary (1930) is based largely on Gason's work in regard to the names of animals. The mammals of the Lower Diamantina were studied in the field by Finlayson, who published his results in a series of excellent papers dealing with the morphology and habits of the various marsupials and rodents. He also mentioned their native names.

Hale and Tindale spent some time in the northern Flinders Ranges (Wailpi tribe) and published information relating to our subject (1925). Berndt and Vogelsang (1941) gave a comparative vocabulary of many Dieri, Ngadjuri and Wailpi terms.

The northern part of the Pangkala territory lies in the region we are considering, and Schürmann (1844; 1846) published much information concerning that tribe and relating to our subject.

Roth (1897; 1901) published a considerable amount of information regarding the relation of the natives to the fauna of the area in western Queensland lying to the north of the region which we are considering. Reference will be made to his work only insofar as it relates to matters or to species of animals with which we are dealing. Strehlow, as well as Spencer and Gillen (1896; 1899) studied the Aranda (Arunta) people inhabiting the territory to the north-east of our Eyrean region; while Taplin (1873; 1879), Wyatt (1879), Meyr (1840; 1846; 1879), Teichelmann and Schürmann (1840), and Moorhouse (1846) have dealt with that lying to the south of our selected area. The Elder Expedition obtained information concerning the region to the west (Helms 1896).

Mrs. Duncan-Kemp published a popular book, "Our Sandhill Country" (1933), concerning an area west of Farrar Creek in the vicinity of Bedourie in far-western Queensland, her home at one time being at Mooraberrie, which is in the territory of the Karuwali tribe. Her remarks were not always localized tribally, but mention was made of the Pitta-pitta, Ooloolooloo, Karanya, Mittaka and others. Her work contains many references of interest which are now incorporated to bring them under scientific notice. Her region lies between that visited by us and that studied by Roth.

Tindale (1940) published a very important paper and a map indicating the boundaries of Australian tribes. Pressure by other tribes, due to economic stress, new railways or settlements, or diminution of population associated with drought or disease, has led to movements towards Lake Eyre and towards the sea coast, so that tribal boundaries may be differently indicated on maps according to their respective dates. Howitt (1904, 45) referred to the process in connection with the Wonkamala, Wonkanguru and Dieri peoples. Finlayson (1932, 150) mentioned the invasion of the Yelyendi territory by the Wonkanguru; and Horne and Aiston (1924, 35) referred to the displacement of the latter tribe southwards by the Ngameni, the Dieri becoming pushed further south by the invading Wonkanguru. The rapid diminution of the full-blood aboriginal population in the lower Diamantina and Cooper regions has been referred to by Fenner (1936), Tindale (1941, 73, 78), and Johnston and Cleland (1943, 150).

Curr (1886) distributed widely throughout those parts of Australia where local information concerning aborigines could be obtained, a list of terms and objects for which native names were desired. The names of a number of different animals (a few mammals, several birds, and a few others) were thus brought together. The names of the contributors (in the order in which they appear in the book), the particular localities concerned, and the local tribe, if mentioned, will be indicated now to avoid repetition later. Where the native tribe is not stated or where the name given is not regarded as being tribal but merely that of a horde or of a district, the tribal designation is that quoted by Tindale in his list of Australian tribes (1940), or is that which I believe to be correct, after consulting Tindale's tribal map (1940), my comments being enclosed in brackets:— Le Souef and Holden, Port Lincoln and the western shore of Spencer's Gulf, Pangkala; Jacobs, north-west of Lake Eyre [Arabana]; Jacobs, northern shore of Lake Eyre [probably Wonkanguru]; Todd, Peake Telegraph Station [Arabana]; Warren and Hogarth, west of Lake Eyre [Arabana]; Paull, Warburton River, Ominee tribe [Ngameni], the territory of that tribe meeting those of the Wongonooroo [Wonka-nguru], Kuranyooroo [Kara-nguru] and Yarleeyandee [Yelyendi] at Cowarie on the Warburton; Cornish, Warburton River [probably Ngameni]; Salmon, Cooper's Creek at Koongi Lake [Yauraworka]; Cornish, Cooper's Creek to the eastward of its northern branch, Yowerawolka tribe [Yauraworka]; Howitt, Cooper's Creek at Innamincka [Yantruwunta]; Sullivan and Eglinton, Cooper's Creek, near the Bulloo River [three tribes are indicated in Tindale's map, but the lack of a more definite locality prevents a definite assignment; the vocabulary is essentially the same as that given for the Tereila tribe by the next author]; Foott, Nockatunga, Wilson River [the locality is stated by Myles to belong to the Thiralla (*i.e.*, Tereila) tribe]; Miles, Thargoninda, Bulloo River, Wonkomarra tribe [Wonkumara of Tindale, p. 175]; Sullivan, Lower Bulloo River [Myles called the tribe Bitharra; Bitjara in Tindale's map]; Gason, from Mount Freeling to Perigundi Lake, Dieyerie [Dieri]; Jacobs, Kopperamana [Dieri]; Warren, Strangway Springs [Arabana]; Phillipson, Umbertana [Umberatana, Wailpi tribe]; Wills, Mount Serle, Tura or Eura tribe [Wailpi]; Kingsmill, Beltana, Kooyiannie [Kujani]; Gason, Unyamootha tribe [Unyamathna = Wailpi]; Green, Wonoka, Arkaba-tura tribe [Jadliaura, Tindale, p. 185]; Green, eastern shore of Lake Torrens, Kortabina tribe [Pangkala, Tindale, p. 182]; Sawers, Gawler Range [Pangkala]; Beddome, Marachowie [Pangkala]; Valentine, Mount Remarkable, Doora tribe [Nukunu, Tindale, p. 182]; Le Brun, forty miles east of Port Pirie [Ngadjuri, Tindale, p. 180]; Crozier, Evelyn Creek, Pono tribe [Wanjiwalku, Tindale, p. 194]; Dewhurst, Evelyn Creek, Pono tribe [Wanjiwalku]; Morton, near the north-west corner of New South Wales, Mulyanapa tribe [Malja-ngapa, Tindale, p. 192]; Reid, Torrowotto, Milya-uppa tribe [Maljangapa, Tindale, p. 192]; Anonymous, Lower Diamantina, 141° E, 25° S.

Karawalla tribe [Karuwali, Tindale, p. 160; Mrs. Duncan-Kemp's observations were made mainly at Mooraberric in the territory of this tribe]; Heagney, Kungarditchi tribe [Kungadu-tji, Tindale, p. 164]; Fraser, Whitula Creek, Birria tribe; Curr, Birria tribe [Bidia, Biria, Tindale, p. 156]; Heagney, Koongerri tribe [Ku-ngkari, Tindale, p. 164]; Dix, Boolcoomatta [Wiljakali of Tindale, p. 195; Wilya of Howitt 1904]; Machattie and Little, Moorloobullo tribe, at junction of King's Creek and the Gcorgina River [Karanya tribe, Tindale, p. 160]; Eglinton Bitta Bitta tribe, Hamilton River, near Bouliá [Pitta Pitta of Roth 1897; Pita-pita of Tindale, p. 170].

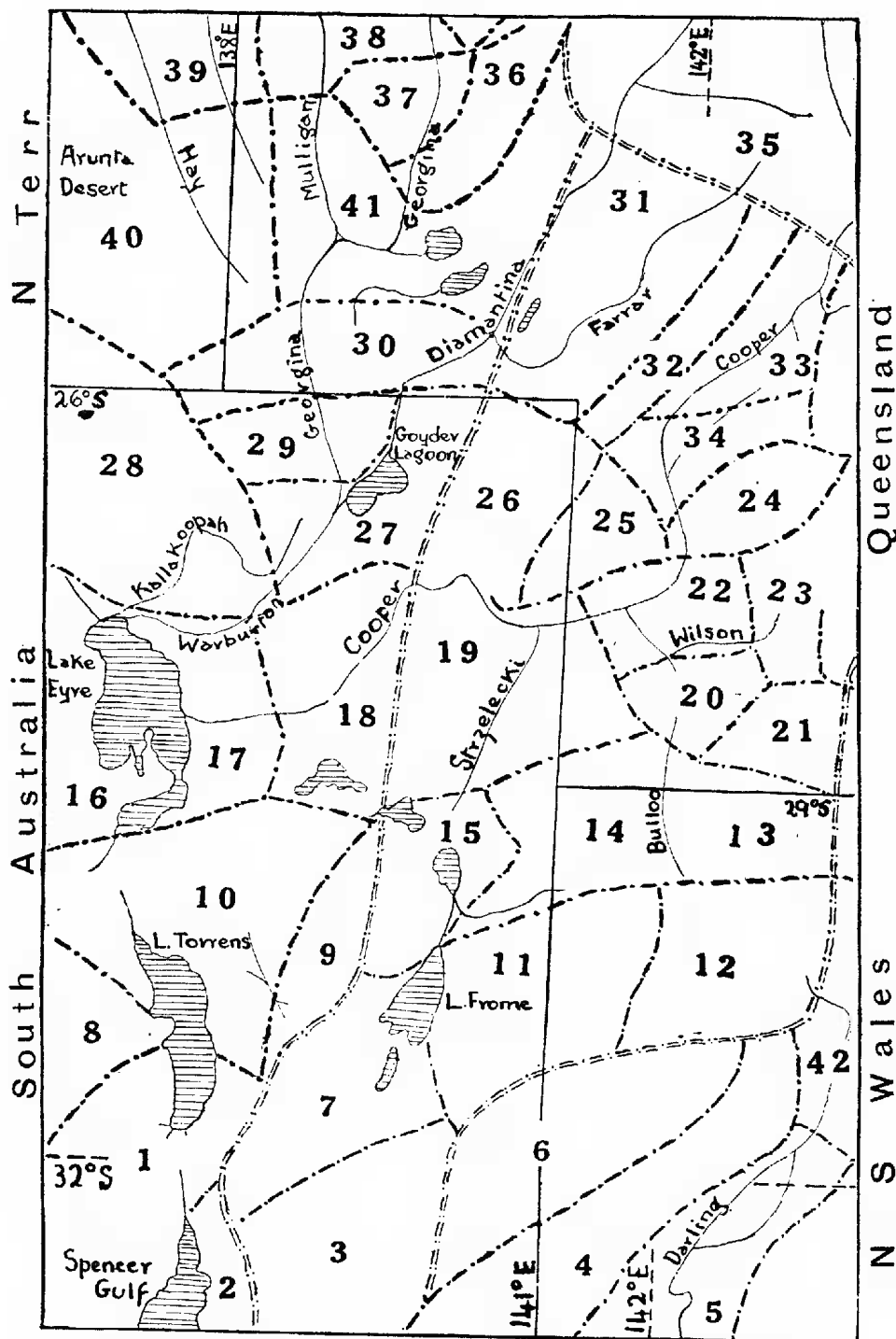
Wells (1894) published a short vocabulary of the Andrawilla tribe from the Lower Diamantina. He stated that fourteen smaller clans or tribes were included in that tribe, one of these being the Koringurra. This latter is obviously Kuringura, i.e., Kara-nguru. Andrawilla is the locality where Wells, as police officer, was stationed, at the junction of the Eleanor and the Diamantina, about thirty miles south of Pandi, where we were camped. The Kara-nguru tribe is now extinct. Johnston and Cleland (1943, 141) considered that the Andrawilla people probably belonged to the Ngameni, a neighbouring tribe.

Howitt (1891) published a rough map indicating the regions occupied by various tribes in the vicinity of Lake Eyre, but the distribution, as shown, differs markedly from that of later maps, particularly in regard to the Wongkurapuna [Arabana], Kuyani and Murdula [Mardala = Wailpi] tribes, but his later map (1904, 44) is much more in agreement with that published by Tindale (1940). Howitt (1891) indicated a tribe termed Yandairunga occupying the western shores of Lake Eyre, where the Arabana dwelt. In 1904 he termed it Yendakarangu. Tindale (1940, 178) reported that the former name applied to the Antakirinya tribe [Andigerri of some authors] which lived west of the Arabana. We are referring in the present paper to the faunal names attributed to this tribe by Howitt, but are not including information relating to it derived from other sources. This tribe migrated to the Arabana territory in recent times, no doubt attracted by the construction of the northern railway to Oodnadatta. The tribe termed Kurnandaburi by Howitt (1940), from the vicinity of Mount Howitt, Cooper's Creek, Queensland, is considered by Tindale (1940, 160) to be probably the Karendala, but may be the Kungadutji whose territory was adjoining; we have listed the references as belonging to the Karendala.

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The following abbreviations for tribal names have been used by us:—A, Arabana (Urabunna); An, Antakirinya (Andigerri, Yendakarangu, Yandairunga); B, Bitjara; Ba, Barkindji; Bi, Birria; D, Dieri; Ja, Jadhiaura; K, Kuyani; Ka, Kara-nguru; Kd, Karendala (Kurnandaburi); Kg, Kungadutji; Ku, Ku-ngkari; Kw, Karuwali; Ky, Karanya; Ma, Malja-ngapa; Mi, Milpulko (? part of Naualko tribe, Tindale, 1940, 1942); N, Ngameni; Nj, Ngadjuri; Nu, Nukunu; P, Pilatapa; Pa, Pangkala; Pp, Pittapitta; T, Tirari; Tc, Tereila; W, Wonkanguru; Wa, Wanjiwalku; Wi, Wilyakali (Wilya); Wk, Wonkumara; Wo, Wonkamala; Wp, Wailpi; Y, Yelyendi; Ya, Yaurorka; Yu, Yantruwunta. DK has been used to indicate information from Mrs. Duncan-Kemp's work unless definitely localised.

The tribes included in our restricted area have a two-class social system with descent in the female line. These two moieties are exogamous and inter-marrying. The distribution of such a system is indicated by Howitt (1904;



TRIBAL BOUNDARIES IN THE EYREAN REGION (after Tiudale, 1940)

1, Pangkala; 2, Nukunu; 3, Ngadjuri; 4, Dangali; 5, Barkindji; 6, Wilyakali; 7, Jadiaura; 8, Kokata; 9, Wailpi; 10, Kuyani; 11, Malyanapa; 12, Wanjiwalku; 13, Karenggapa; 14, Wadikali; 15, Pilatapa; 16, Arabana; 17, Tirari; 18, Dieri; 19, Yantuwunta; 20, Tereila; 21, Bitjara; 22, Wonkumara; 23, Ngandangara; 24, Karendala; 25, Ngurawola; 26, Yauraworka; 27, Ngameni; 28, Wonkanguru; 29, Karanguru; 30, Yelyendi; 31, Karuwali; 32, Marulta; 33, Biria; 34, Kungadutji; 35, Majuli; 36, Karanya; 37, Kungkalanya; 38, Pitapita; 39, Andekerebina; 40, Wonkamala; 41, Mitaka; 42, Naualko. The dotted line almost bisecting the map indicates the eastern limit of the tribes practising subincision; that on the right of the map marks the eastern limit of tribes practising circumcision.

map, p.90). The two classes correspond to those of Eaglehawk and Crow of Victoria (Mathew 1899). Amongst the Dieri and some neighbouring tribes the terms Kararu and Matteri are employed. Each class was composed of individuals belonging to a number of groups or murdus (also called mada, muddu), and Howitt (1904, 91-98) has given lists of those which he found represented in the various tribes. These murdus, according to the Dieri legend, were originally animals or plants ordered by the great spirit (Mura) to assume human form when he instituted the class divisions (Howitt 1885,; 1904, 96). These murdus, after having become human, scattered in various directions, retaining their original names, and thus these totem (or murdu) names have become irregularly distributed in the different tribes occupying the Eyrean region (Howitt 1904, 782-783). The present inhabitants regard themselves as descendants of the particular murdu to which each belongs. The legendary actions and wanderings of the ancestral muramuras play a very important part in the beliefs and ceremonial life of the aborigines.

A perusal of the names given by Curr's correspondents (1886), and incorporated in this paper, will indicate a wide variety of spellings (and, to some degree, of pronunciations also) for the same native term. There are, of course, some minor changes in the name of a particular animal as one passes from one district to another, while in other cases the change is so marked that entirely different terms are applied to such animals. An attempt has been made to group similar terms.

PRIMATES

We have considered the aborigines as part of the fanna and have accordingly collected the various terms applied: (a) to them as a group, (b) to the individual male, *i.e.*, an aboriginal man, and (c) a native woman. We have also included the terms applied to the invading white man by the aborigines.

Human hair is converted into string and used for waist girdles and head bands (Schürmann 1879, 211, 233). The waist girdle of human hair or of opossum fur was termed kakkallee Pa if made only from hair from the human head, kakka = head, Schürmann 1844, 9; kundindi Pa, purlupu Pa, Schürmann 1844, 20, 61; murdie W, dampera W, yinka W, Horne and Aiston 1924, 38, 45, 46, 68, 175; oolpooroo D, Sanger 1883; yinka D, Gason 1879 — D, Howitt 1904, 662. Head net or band, charpoo W, Horne and Aiston; chanpoo D (charpoo, p. 297), Gason 1879, 289; tjarpu D, Fry 1937, 201; munga Nj, jarpu D (charpoo of other authors), Berndt and Vogelsang 1941, 6. Hair, human or from other sources, was utilized in making charms (Horne and Aiston 1924) to be worn as a protection:—tharta W, against snakes and enemies, referred to later in this report; nalta W, now generally made from rabbit fur, to obtain through dreams information or to awaken remembrance of things forgotten (p. 137); tutta, composed chiefly of tails of marsupials tied together with sinews but containing some human hair (p. 136).

Human hair string was attached to the pointing bone:—wirragaroo W, Horne and Aiston 149, 152, 176, fig. 86-87; badju Nj, naria-moku D, Berndt and Vogelsang 1941, 8; mookoo D, Gason 1879; muku, Howitt 1891, 90 (the small bone of the human leg is used). The bone-pointing ceremony is termed mookoellie duckana D, Gason 1879, 275; mukueli dukana D, Howitt 1891, 90, muku = bone, dukana = to strike; mukujali dukana D, Fry 1937, 201. The phallicrypt worn by men was wilpoo W, Horne and Aiston, 38, 47, 176, made of fibre and of fur of rabbit and "white rat" (*i.e.*, *Thalacomys*); wunari Nj, ngampu D, Berndt and Vogelsang 1941, 8; malberinye, ngulta, Pa, Schürmann 1844, 25, 48 (tassels of opossum fur); thippa, unpa D, Gason 1879 (from fur of rats or wallaby); tippa D, Howitt 1904, 646, 805) (from fur of "native rabbit"); purapura, wirupa D, Fry 1937, 190, 201. The string attached to the bull-roarer (yuntha D;

wetana Nj, junta D, Berndt and Vogelsang 1941) is made from human hair or from native flax (Howitt 1904, 660).

Hair or fur:—putti, butti Pa, Schürmann 1844, 23; multa (fur) moodoo (hair) Ka, Wells 1894; multje W, natta N, at Pandi. The method of converting hair, fur or fibre into string was described and illustrated by Spencer and Gillen (1899, 613-614, fig. 123), and by Horne and Aiston (1924, 67-68, fig. 53-55).

The Blacks (general term for aborigines as given by Curr's correspondents):—Tura Pa, Ja, Green; thura K, Kingsmill; tua A, Jacobs; ura Pa, Sawers; eura Wp, Phillipson — Wp, Wills; दौरा Nu, Valentine; ura Wk, Myles; yoorā, toora Pa, Le Souef and Holden. Kurnawara D, Gason; kurna Yu, Howitt — Te, Sullivan and Eglinton; kerna Kw, Anon — Ya, Cornish — Pp, Eglinton; karna D, W?, Jacobs. Yarlee Wa, Crozier; yalli Wa, Dewhurst; yarlye Ma, Morton [this term appears in the tribal name Yelyendi, Yellyandi of the local whites]. Yooroonguna Wp, Gason. Yoo-oo-oodla N, Cornish. Warno Wk, Myles. Weenbabitcha Wi, Dix; wimbiga Ma, Reid. Capo Kg, Heagney. Marroopoo N, Paull. Nooga Te, Foott; ngoorra B, Sullivan. Nulla A, Todd — A, Warren and Hogarth. Kooroo Ya, Salmon. Kurrana murtoo Ky, Machattie; mirti Bi, Curr. Carcoora Kg, Heagney; karkoora Ku, Heagney.

Blackfellow — Nulla A, Todd — A, Warren and Hogarth — A, Warren. Ura Wk, Myles — Pa, Sawers — Pa, Beddome; yoorā Wp, Gason; yoo-oo N, Cornish; eura Wp, Phillipson — Wp, Wills; orroroo Kw, Anon. Tura Pa, Ja, Green; thura K, Kingsmill. Yarlye-oorā Ma, Morton. Kurna Wp, Phillipson — D, Gason — Yu, Howitt — Te, Sullivan and Eglinton — Wa, Crozier; kurrana Ky, Machattie; koornoo Ya, Salmon — Ya, Cornish; kerna Pp, Eglinton — N, Ya, Cornish; koonga Wk, Myles; kanna N, Paull; karna D, Jacobs. Karmachunara W?, Jacobs. Tuachuju A, Jacobs. Tharinga B, Sullivan. Nanga Pa, Beddome. Mirti Bi, Curr. Wimbiga Ma, Reid. Karkoora Ku, Heagney.

Other references are—Meru, epa, juri [eura] Nj, wulka Wp, Berndt and Vogelsang 1941, 7; Kurna D, Gason 1879, 293; kalka-aroo Ka, Wells 1894, 521; wulka Wp, Hale and Tindale 1925; yura Pa, Schürmann 1844, 87; karana Ky, Tindale 1940, 160—term occurs in the name of the Karanya tribe; meyu Nj, Tindale 1940, 180 [same term, meyu, mayoo, applied in the Adelaide tribe, Wyatt, Taplin]; kana D, Howitt 1904, 299, 780; Gatti 1930, 121; Fry 1937, 197.

Blackwoman—Munkera A, Todd; moncurra N, Cornish; monkurra Ya, Cornish. Boku A, Jacobs; bookoo A, Warren and Hogarth. Ikalla A, Warren. Widla D, Gason — W?, Jacobs; willa N, Paull; walka Te, Sullivan and Eglinton; wullga Te, Foott. Artoo Wp, Phillipson — Ja, Green; artunia Wp, Wills; yooratoo Wp, Gason. Yewa Ya, Salmon. Noa Yu, Howitt; this term is used for wife amongst some Eyrean tribes. Wilthetha B, Sullivan; wethetha Wk, Myles. Kumbuka Wa, Dewhurst; kambukka Ma, Morton; koombutchā Wi, Dix; kumbuga Wa, Crozier. Wondthowery Kg, Heagney. Kurdrie K, Kingsmill. Carroo Pa, Green. Nongo Ma, Reid. Punga Kw, Anon. Munchmali Bi, Curr. Moitu Pp, Eglinton. Purraja Ky, Machattie. Balara Pa, Sawers; pallara Pa, Le Souef and Holden.

Other references are—Atuni Nj, widla D, adni Wp, Berndt and Vogelsang 1941, 7; adni Wp, Hale and Tindale 1925; mankara D, young woman, Gatti 1930, 122.

White man—Oodnya Wp, Phillipson; oogtna Wp, Wills; oonyoo Wp, Gason; coodnoo K, Kingsmill; goodenue Pa, Green; koonyoo Nj, Le Brun; all of these terms are obviously akin. Koopa Pa, Le Souef and Holden; coopa Pa, Beddome; koopia woonka A, Todd. Pirri-wirri Yu, Howitt; birrie Te, Sullivan and Eglinton; birri-birri B, Sullivan; birre-birre Wa, Crozier; peri-peri Kw, Anon; boree Ma, Reid (same word for ghost). Bingerā Nu, Valentine. Purloo Ya, Salmon.

Doona Wk, Myles (same word for ghost). Thundukoa Wi, Dix. Too-too Ma, Morton (same term for dead). Tita Pp, Eglinton. Wite pella D, Gason — Ky, Machattie (obvious corruption of "white fellow").

Schürmann (1844) recorded *mundultu yura Pa* (p. 33, 34) for a European as distinct from *mirrinye yura*, a native (*yura* = man; *mirrinye* = like or similar to; *mundultu* = European, as an adjective, p. 34) (the term is quoted in his MS additions as *mandullu* = *kunyu* = dead); and *palkarra yura Pa* (p. 50), as a white man (*pankarra* = white). *Perkannia meyu* (Teichelmann and Schürmann 1840; 1933, 136) and *pinde meyu* (Williams 1839; 1933, 69) were applied by the Kaurna of the Adelaide plains to a white man. *Wiltiella Yu*, Howitt 1901, 292.

It will be noted that many of the terms relate to "ghost" or "dead." Schürmann (1844) recorded that *muntyo* or *kunyo* was the term for dead (p. 36), and that *nara*, *wilya* or *wilya kunyo*, amongst the Pangkala, meant ghost or departed soul (p. 38, 72). Wyatt (1879) stated that *koonyoo*, amongst the Kaurna, was an imaginary being (p. 171), and an object of terror (p. 168) which was said to fly at night and make a noise in the trees, but was never seen; it could alight on a sleeping man and press on his liver, causing excessive pain and sometimes death. Wyatt suggested that the real cause of the pain was the excessive gorging to which natives were prone. Woods (1879, p. xxix) said that *kuingo* was a fabulous personification of death (Kaurna tribe). Sawers reported that *goodnee Pa* (? error for *goodnu*, *i.e.*, *koonyu*) was a ghost. Teichelmann and Schürmann (1840; 1933, 107) reported that *kuinyo* was applied to a dead person and also to a monstrous creature like that referred to by Wyatt. The Murray natives, according to Moorhouse (1846; 1935, 29), called it *nokunno*. The Pangkala name of the fiend was *Marralye* (Schürmann 1844, 28; 1879, 235; Wilhelmi 1861, 190), who could assume the form of a bird which flew at night and pounced on his victims, injuring or even killing them without leaving any marks. *Marralye* was distinct from the nocturnal *purkabidni* who, though of gigantic human form, could be conquered (Schürmann 1879, 236).

Pindi was stated by Teichelmann and Schürmann (1840; 1933, 123, 137) to be a pit or grave or habitation of souls before or after death; whites, when first seen by the aborigines, were regarded as the souls of their own ancestors revisiting their native country; these souls were considered to be retained in a large den (*pindi*) until liberated. Hence the term *pindi meyu* for a white man, and *pindi mai* for European food. *Pindi* came to be used by the Kaurna as meaning European.

Howitt (1904, 442-446) discussed the belief that white men were ghosts of members of the tribe, returned in the flesh from death, and gave an instance concerning himself and the Dieri who called him *pirri-wirri-kutchi* (= wandering ghost). *Pirri-wirri* is obviously the same term as *birri-birri* and *peri-peri* recorded by some of Curr's correspondents. Howitt also reported that *kutchi* (= ghost, or spirit of the dead, p. 647) was applied by the Dieri to any of the strange equipment of the whites, *e.g.*, a dray and a team of bullocks. Wells (1894, 519) reported that *koochoo* was a demon who endeavoured to steal young women (Karanguru tribe); Gason (1879, 283) translated *kootchie D*, as devil.

The term *munkera* (young woman or girl), or a variant of it, was used by natives of the Eyrean basin to indicate some constellations. Orion's Belt was *munkawa* (= the woman) according to Howitt (1891, 91). The Pleiades were believed to be seven young women who in ancestral times escaped from a pursuing *muramura* by leaping into the sky (*pari wilpa D*), taking their fires with them. The constellation is *pallari Pa* (= women), Schürmann 1844, 51; *munkara walkawura* (= the young women), Howitt 1891, 91; *mankara wora* of the Dieri, and *bulali* of the Ngadjuri (Berndt and Vogelsang 1841, 8). The latter authors gave *mankarawara* as the Dieri name for the Southern Triangle, as well as for the

Pleiades. Stirling and Waite (1919, 124), when referring to toa 77, stated that the Mankara-worana were the girls whose souls were believed to be the Pleiades. Horne and Aiston (1924, 141) mentioned the flight of seven girls into the sky (pari-wilpanina = vast hole) each carrying a fire, to escape a moora woman, the girls becoming stars, now known as Monkira. The latter is also the name of a township on the lower Diamantina in Queensland. The legend concerning the Pleiades is widespread and occurs in Victoria also (Howitt 1904, 439-440). Teichelmann and Schürmann (1840; 1933, 114-115) reported that the Kaurna called the Pleiades mankamankarranna (mankarra = young girl), and Orion's Belt tinni-inyaranna, a group of youths who hunted kangaroos, emus and other game on the great celestial plain (womma) while the mankamankarranna dug roots which were around them.

Howitt (1904, 787) described an Arabana legend referring to the ancestral wanderings of a number of girls, mankara-waka-ya-pirna (= girls-little-and-big), who according to another legend were transferred to the sky as stars, the former being the Pleiades and the latter the stars in the belt of Orion. One of the male muramuras (Madaputa-tupuru or Marukadlana) became Antares, the principal star in Scorpio. Schürmann 1844, 33, reported that amongst the Pangkala, Orion's Belt was minye and mirrarri (= boys or men). Gason (1879, 300) stated that moongaro (in Dieri) meant spirit or soul, while Mathew (1899, 213) called it ghost. Worana D, was a fabled creature, half man, half beast, believed to live on an island in Lake Eyre (Katitandra), according to Siebert (in M. Howitt 1902, 412).

CARNIVORA

Canis dingo, Dingo. The same term is sometimes used for "wild dog" as well as for "tame dog" (*i.e.*, a camp dog or partly domesticated dingo); in other cases the terms are quite distinct; and the same term may be given for a wild dog in one of Curr's lists and for a tame dog in another. In view of the foregoing, the terms will be listed together.

We received the following names at Pandi, the latter being the Yaurorka name for dingo; territa, N; mudla, W. Curr's correspondents (1886) have supplied a long list of names, as follows:—murdla A, Todd; madla A, Jacobs; mudla A, Warren; mudlu A, Warren and Hogarth; mulla N, Cornish; munga Pp, Eglinton; mullok Ky, Machattie. Pande Kw, Anon; pandi Ya, Salmon, Cornish. Kintala Wp, Phillipson; kintalla Yu, Howitt; kentella D, Jacobs; kintalo D, Gason; kintalla N, Paull. Tirrita W ?, Jacobs; thirita Wa, Crozier. Wilka Ma, Morton; wilka Wp, Gason — Ja, Pa, Green — Pa, Sawers — Wp, Phillipson, Wills; wilki A, Warren and Hogarth; wilker K, Kingsmill; wilga Pa, Beddome, Le Souef and Holden. Koonoo Ma, Morton; koonai Wa, Crozier; kunnuya Wa, Dewhurst; coonatha Kg, Heagney. Kaltha Ma, Reid; kalley Wi, Dix; kalli in some Darling tribes. Mari Wk, Myles; mirrc B, Sullivan. Dethee Kg, Heagney; deethee Ku, Heagney; thit-the Te, Sullivan and Eglinton; thithe Te, Foott. Coortnini Pa, Sawers; kurdninni Pa, Le Souef and Holden. Quana Nu, Valentine. Coppa Pa, Beddome. Beurli Ky, Machattie. Poolkaga Ma, Reid. Puruina D, Jacobs. Punamya Pp, Eglinton. Tuti Bi, Curr. Gardley Nu, Valentine [this term resembles kadli, the name given to the dingo by the Adelaide tribe, Taplin 1879, 131. Kali, given above, is keli of the Narrinyerri, and kellu of the Moorundee people of the lower Murray (Taplin 1879, 131)].

Gason (1874; 1879, 298) mentioned kintalo as the Dieri name; Wells (1894, 520) gave teerita for the Andrawilla tribe (*i.e.*, Karanguru), and stated that the pups were eaten (p. 517).

Howitt (1885, 6) mentioned kintala as a Dieri totem (murdu); and in 1891 gave several tribal names for the dingo murdu:—kintala D (p. 38), mudla An (p. 39), titi Kd (p. 39). In 1904 he repeated (p. 91-98) kintala D; madla W;

tirta Yu, N; dirangatha Yu; madla An, A; pandi Ya; jitti Kd; and kurli Wi; and mentioned Dulderana as the name of a mura-mura dog in an Arabana legend. Other references were made by Eylmann (1908, 167), kintala D; Hale and Tindale (1925, 57), wilka Wp; Finlayson (1939, 115), mudla W, kinturra D; Spencer and Gillen (1899, 60), matla A; Berndt and Vogelsang (1941, 5), wilka Nj, wurdingi Nj, kintala-jampa D [jampa = wild], wilka Wp; Schürmann (1844, 22), kurdninni Pa, wilga Pa (p. 72), the domesticated animal; kintala, pandi D, Gatti 1930; kintala D, Fry 1937, 193; mudlayapa A, kintalla D, yappulu D, Helms 1896, 316. Fry (1937) recorded Kantupanturana as a big dog-like legendary animal (p. 195), and pandi-pandi (p. 273) as an animal like a wolf. Siebert (in M. Howitt 1902, 413) reported pandi as the name of a legendary beast of which the natives were much afraid.

Schürmann (1846, 1879, 211, 218) mentioned that, amongst the Pangkala, dingoes were eaten, that the tip of the tail was tied to the beard as an ornament, and that the whole tail was sometimes tied round the head for a similar purpose (and then termed wilgarti, 1844, MS). The same information was published by Wilhelmi (1861; 1862). Horne and Aiston (1924) referred to the hunting of these animals by the Wonkanguru (p. 57-58, 79), who ate the pups; and stated that the tribe did not use dingo skins as water-bags (nilpa).

Stirling and Waite (1919, in their account of the toas or direction signs indicating localities and events associated with ancestral spirits (mura-mura), mentioned names of dogs who accompanied some of these mura-muras in their wanderings. These animals and the toas associated with them were:—67, spotted dog, Wartjiyampana; 126, Ngurluwarila; 132, a bitch, Pantupayana; 170, Tjakula; 274, Pirrila; all of these being Dieri terms. Toa 284 (Ngameni) refers to making water-bags from dingo skins.

Horne and Aiston (1924, 128) gave an account of the Kuyani legend associating the wild dog with the famous red-ochre deposits near Parachilna in the Northern Flinders Ranges. In ancestral (mura-mura) times, a big dog, Marindi, fought a gecko, Adnoartina. The gecko tied hair-string round his tail to make him fight better by preventing his courage from entering into his tail, and then fought at night because his nocturnal vision was much better than that of the dingo. He bit the dog's throat, and the escaping blood dyed the rocks on the banks of the creek. The most valuable kind of pigment was "dog's blood ochre." A brief account of the Dieri legend relating to this deposit was given by Fry 1937, 196-198, 273-274. The constriction now seen around the base of the tail of geckoes (now small individuals when compared with their ancestors) was due to the string used by the ancestral adno-artina.

Canis familiaris domestica—White-man's dog as distinct from the aboriginal's dingo and its various hybrids with the former. Dogga. Gason (1874) gave dog-doga as its name amongst the Dieri. Puppa Pa, Schürmann 1844, 53, puppy. Papa is the Loritja name for dingo (Strehlow 1908, 62). Marra Pa, Schürmann 1844, 28, puppy or other young animal.

Vulpes vulpes Linn. Fox—Finlayson (1939, 115) noted that in the Pandi area no native name was associated with the fox, feral cat, or rabbit. The introduction of the fox has been referred to by Wood Jones (1925, 356). The Dieri, when they first saw it, termed it kintala yampa, *i.e.*, wild dog (T. Vogelsang).

Felis domestica. Cat (feral)—The introduced cat became feral soon after white settlement of the various colonies. The Elder Expedition found feral cats in Central Australia, far remote from any settled area. Putji, putji-putji, putji-kata, kata, are all applied in Central Australia, as well as in the Eyrean region. Marraitye idnya, which was sometimes abbreviated to idnya (marraitye = similar to; idnya, native cat [*Dasyurus viverrinus*]), Pa, Schürmann 1844, 5, 29. Wilga,

meaning strictly a tame dingo, was also applied to a domestic cat by the Pangkala, Schürmann, l.c., p. 72. The term "wild cat" should not be confused with "native cat" (*Dasyurus* spp.; polyprotodont marsupials), as has been done by Miss Young (Helminth parasites of Australia. Imp. Bur. Agric. Parasitol., 1939, 57, 101), who attributed to *Dasyurus* sp. the record by Cobbold (Parasites, a treatise, etc., 1879, 308) of *Bothriocephalus decipiens* (= *Diphyllobothrium decipiens*) from an Australian cat (i.e., feral *Felis domestica*), its actual locality being south-eastern Queensland, though not indicated by Cobbold.

Arctocephalus cinereus and *A. doriferus*. Seals—Nangki Pa. Schürmann 1844, 32.

CHIROPTERA

Bat (general name)—Miltyinye Pa, Schürmann 1844, 32; pinchiepinchidara D, Dason 1879, 285, eaten; pinchipinchinarra W, Finlayson 1939, 115. The latter author reported that bats were uncommon at Pandi, the only species taken by him being *Nyctophilus geoffroyi pallescens*. An account of the latter was given by Wood-Jones (1925, 435), who stated that this small long-eared bat appeared to be the commonest and most widely distributed species in Australia, occurring in scrub and mallee country as well as in the arid interior, the subspecies *pallescens* being the dominant form in the northern part of South Australia. Waite (1917, 430) obtained few *Chalinolobus gouldii* Gray and abundant *Scotophilus greyi* during the South Australian Museum's expedition to the lower Cooper.

Howitt (1904) mentioned as names of a bat (and its totem)—tapaiuru D (p. 91); tapayuru D (800); tapairu W (92); N (94); tabaira, east and north-east from Dieri territory, along the Cooper, Yu, (96); waparuru (96); karabana (782); but the last-named is also given (91, 783) for a small marsupial and its associated totem (D), so that it is probable that term may have been used by Howitt for a bat in error for tapaiuru which is not given in his list on p. 782-783, but is listed elsewhere as a totem animal amongst various Eyrean tribes (p. 91-96). Eylmann 1908, 167, mentioned tabajura D. totem, as the flood-bird, *Scythrops novae-hollandiae*. Berndt and Vogelsang (1941, 4) gave milka and pintji-pintjindara as Ngadjuri and Dieri names respectively for bats. Spencer and Gillen (1899, 447, 655) mentioned that the small bat *Nyctophilus timoriensis*, and the large white bat, *Megaderma gigas*, termed by the Aranda, unchipera (p. 447, 655) and elkintera or erlintera (p. 447, 648), respectively, were totem animals. Strehlow (1908, 62) reported these two species to be ntjipera and irkintera, respectively, while the common bat, not identified, was ulbulbana (Aranda). Australian bats, formerly identified as *N. timoriensis*, are now assigned to *N. geoffroyi* Leach, var. *pallescens* being the Central Australian form. Mr. T. Vogelsang informed me that pintji-pintji-dara was a common small bat which during the day clung to trees; *Nyctophilus geoffroyi* is probably the species.

UNGULATA

Aboriginals modify the European names of the introduced Ungulates, usually (in the Eyrean region) by adding a terminal a; thus goat becomes go-ta or nannin-gota; sheep, tjipi; camel, kamela; donkey, donki; ox, bullocka.

Horse—The horse is the only introduced animal which in the Eyrean region is called by a native name. Nanto D, Howitt 1904, 199; A, Warren 1886, 112. Mr. T. Vogelsang informed me that the term is still used by the natives of lower Cooper's Creek. Curr (1886, 150) mentioned nanto as a kangaroo, Adelaide tribe (Kaurna), his information having been derived from Wyatt. The latter (1879, 173) reported that the term was applied to a kangaroo, horse, bullock or other large animal, an old hoary male kangaroo being termed nanto boorka (booroko = white-haired, hoary; boorka = frost), while wouwe was applied to the female kangaroo and also to sheep (p. 178). Williams (1839; 1933, 63) recorded nanta as a horse

and nantuterka as a male kangaroo, Kaurna tribe (turka = kangaroo, p. 66). Teichelmann and Schürmann (1840; 1933, 123) mentioned nauto as a male kangaroo and pindi nanto as a horse or pony (p. 137). The term pindi and its relation to the white settlers has already been discussed in this paper (pindi meyu = white man). Kühn (1886) mentioned nantoo as the name for horse (p. 145) and kangaroo (p. 146) on Yorke's Peninsula (Narrang-ga tribe). Since explorers from Adelaide and the settled districts of the State would take local natives along with them when first visiting the Eyrean region, the term nanto (or pindi nanto) would become introduced into the region as the name for the new animals (horses) accompanying the expedition, the Eyrean aborigines having their own names for the kangaroo (tjukuru) which belonged to a species (*Macropus rufus*) different from that of the grey animal of the Adelaide plains (*M. major*).

Pony became ponynge Pa, Schürmann 1844, 88; and we received boonce (*i.e.* pony) as the name for horse amongst the natives at Ooldca. Moorhouse (1846; 1935, 25) recorded meinchun as the name for horse amongst the Lower Murray natives (Morgan to Mannum); Wyatt (1879, 172) stated that michan = to smell, so that the native name may have some relation to the odours of horses. Howitt (1901, 292) mentioned that, during his expedition in 1861, the term yarraman was used by the Yantruwunta for a horse and that the name must have been transmitted from tribe to tribe until it reached those wild blacks. Morris (Austral English, 1898) referred to the earlier usage by natives of the term as yerraman, according to Sir Thomas Mitchell (1848).

Donkey—Donki D, Gatti 1930, 99.

Ox, bullock—Bulakoo D, Gason 1879, 290; bullocky Pa, Schürmann 1844, 48; 1879, 250. The application of the same term (nanto) to kangaroo and bullock (Wyatt 1879) by the Kaurna has been mentioned above. Is it a coincidence that that term buloker was applied to the kangaroo by the Kemandok (Kureinja tribe, Euston to Wentworth, Tindale 1940, 191) according to Macfarlan (in Curr 1886, 282), and by the Yit-tha tribe (Jita-jita, Tindale 1940, 196) inhabiting an area near the lower Lachlan in New South Wales according to Macdonald (in Curr 1886, 288) or is it a transference of terms?

Wells (1894, 520) reported wirri-pa Ka as a calf, and amma-milki Ka as a cow. The latter word means milk-giver, a combination of the Karanguru amma = milk or breast [or udder], and milki, a corruption of the English word. Ngama = milk or breast, Nj, D, Berndt and Vogelsang 1941, 7; auna D, Gason 1879, 294, breast. Moorhouse (1846; 1935, 29) recorded noulla [onomatopœia] as the term for a cow or bullock.

Taplin (in Woods 1879, 3) told of the reaction of the Narrinyerri natives when some stray bullocks from New South Wales first entered the district. The aborigines concluded they were demons (brupar) and decamped in terror. They called them wunda-witjeri, which means creatures with spears (wunda) on their heads, and Taplin reported that that name was still retained for horned cattle.

Pig—Yupara Pa, Schürmann 1844, 87; piki D, Gatti 1930, 99. The Kaurna used the term piko, Teichelmann and Schürmann 1933, 173.

Camel (dromedary)—Kamecl, kanuli D, Gatti, 1930, 99. Howitt (1901, 293) reported that the Yantruwunta at first applied the term warugati (the name for the emu) to the camel, probably because of its grey skin (waru = grey, gati = skin). Kamela is applied in the Musgrave Ranges by the Pitjandjara and Yankundjajara tribes.

Goat—Go-ta or nannygota D; same terms used in the Musgrave Ranges by the two tribes just mentioned.

Sheep—Tjipi D. Tseepa or tjipa, Musgrave Ranges. Tjipi kuparu D, lamb, Gatti 1930, 100 (kuparu = young, small). The Kaurna tribe applied wouwe to

sheep as well as to the female kangaroo (Wyatt 1879, 178), but Williams (1933, 70) stated that the term *tipa* was used for the former.

CETACEA

Porpoise—Kattappi Pa, Schürmann 1844, 17. *Delphinus delphis* is the commonest species in the South Australian gulfs.

Whale—Kangkarru, wata Pa, Schürmann 1844, 70. Berndt and Vogelsang (1941, 10) mentioned ngakula Nj as a whale, but this is probably an error for shark, since Moorhouse (1846; 1935, 28) reported nakudlo as the term used for shark by the adjacent tribe along the Murray. The Ngadjuri was an inland tribe, but its neighbours, the Nukunu, Kaurna and the Murray tribes had sea frontages. The large *Balaena australis* used to be common in the South Australian gulfs and in sheltered coves until the arrival of whalers exterminated it. Various small Ziphiid whales (*e.g.*, *Mesoplodon* spp.) and large Delphinidae (*Globiocephala*) are from time to time found stranded on these coasts and were, no doubt, used by the natives as food, as was *Balaena*. Ribs of the last-named whale were used, when available, instead of small tree trunks and branches, to form the framework of wurleys or huts. Amongst the Kaurna and Ramindgeri the animal was called kondole (Meyer 1879, 203; Taplin 1879, 59); kondolle (Wyatt 1879, 170 — whale, also its blubber); kondolli (Teichelmann and Schürmann 1840; 1933, 106); or kondarli (Taplin 1874, 2); and gave its name to the horde, Kondolinyeri, living on the peninsula on the north-west side of the sea-mouth of the Murray (Taplin 1879, 2). Meyer (1846; 1879, 203) gave an account of a Narrinyerri (Ramindgeri) legend associated with kondolli (repeated by Taplin 1879, 59-60). Though it relates to a region outside the limits set for this paper, I have ventured to include it.

In ancestral times a corroboree was being held, but as the performers had no fire, it was carried out during daytime. A large, powerful man, Kondole, was invited through two messengers, Kuratje and Kanmari, to attend the feast because he possessed fire. Kondole hid his fire and then came, but the tribesmen determined to obtain his fire by force and eventually wounded him in the neck with a spear. This action caused great excitement, most of the performers becoming transformed into various animals. Kondole ran into the sea and became a whale, and, ever after, blew water out of the wound which he had received in his neck. Kuratje and Kanmari became small fish, and since the former had only a mat of seaweed to cover him, he became a dry fish without fat, while Kanmari, who was dressed in a good kangaroo skin, became a fish with a great deal of oil under the skin. Some of the performers became opossums; the young men whose heads were ornamented with tufts of feathers became cockatoos, hence the crests of the latter. Kondole's fire was taken and placed in a grass tree (*Xanthorrhoea* or *yacca*), where it still remains and may be brought out by rubbing, this plant being used for producing fire by the rotary method. Kanmari is the lake mullet, *Agonostomus forsteri*, and is indicated as *connuri* by Waite in his Handbook of South Australian fishes (1923, 108). Wyatt (1879, 171) mentioned *kooraiche* as the name of the mullet. There are four species of mullet to be found in the vicinity of Encounter Bay and the mouth of the Murray; *A. forsteri* (= *konmuri*), *Mugil argentus* (= *wankari*), *M. cephalus* (sea mullet) and *Myxus elongatus*. Kuraitji probably applies to one of the two last-named, *Myxus* (sand mullet) being much smaller than the other and more likely to be the species referred to.

RODENTIA

Oryctolagus cuniculus Linn. Rabbit—Rabbita, Rabiti D, Fry 1937, 287. Now widely distributed in the region and forming an important article of diet for the aborigines. The effect of the introduction of the rabbit on the local fauna has been referred to by Wood Jones (1925, 286).

Rabbit skins, because of the ease with which they can be obtained in the Lower Cooper region, are tanned by using a particular acacia, yearda (considered by Johnston and Cleland 1943 to be *A. salicina*), and then used for making water-bags (nilpa), the method being described by Horne and Aiston (1924, 51, fig. 39).

Rats and mice—Gason (1879, 285) mentioned the following Dieri names:—miaroo, rat; poontha, mouse; cowirrie, a species of rat (this name is also that of an important Dieri trading centre, Cowarie, on the Warburton); pulyara, long-snouted rat; koolchie, a species of rat; koonappoo, a species of mouse; kulunda, black and white rat, similar to the house rat; all of these kinds were eaten. Wells (1894, 517) stated that rats (miaroo) were eaten by the Kara-nguru.

Howitt (1891, 39) mentioned as Dieri murdus, punta (mouse), maiaru (rat), karapana (a mouse), and kokula (a rat); but the last-named identification may have been incorrect, since he stated later (p. 39) that kokola was a wallaby (An) and a bandicoot (Kd). In 1904 Howitt gave a list of Eyrean murdus, including maiaru D, W, rat; punta D, Yu, shrew mouse; karabana D, small mouse; kunamari Yu, rat (p. 91, 92); parina Kd, rat; korinya Kd, small burrowing rat (p. 97). It may be mentioned regarding kunamari that Howitt and Siebert (1903, 528) stated that mari D was a kind of wallaby.

Stirling and Waite (1919, 149) mentioned a toa, No. 275, concerning a kokula, a species of rat which carried its young on its back. As indicated above, kokula is a small marsupial, Howitt (1903, 97) calling it a small bandicoot. Berndt and Vogelsang (1941, 7-8) mentioned punta as the name of the mouse and rat (Dieri); mungu as that of the former and wada that of the latter amongst the Ngadjuri tribe.

Gason (1874, 272) stated that, during the mindarie (or peace corroboree), young men who were about to be initiated were decorated by each having, attached to the head, a thippa made of tails of rats. He also stated (p. 289) that this bunch of tassels was made from the tails of native rabbits (*i.e.*, the rabbit bandicoot, *Thalacomys* spp.).

It is to the excellent accounts of the native fauna by Finlayson, who undertook field work in the far north-eastern region of South Australia, that we now know the Wonka-nguru names of the local rodents. Some species have now become either rare or extinct in that region. Two species at times are represented by migratory hordes (Finlayson 1939, 348, 354).

Rattus villosissimus Waite. Finlayson (1939, 88-94) stated that its name was miaroo W, but that the term had an earlier usage and was applied (presumably by whites) to many, if not all, kinds of rats. He, as well as Le Souef and Burrell (1926, 107), reported that it was the migratory horde rat of Western Queensland and the Northern Territory. It was first described by Gould in 1854 as *Mus longipilis*, nom. praecoc.

We received the name mai-aru N, W, for this edible rat which was dug out from cracks in the mud of the flood plain of the Diamantina. This species, and the succeeding one, were mentioned by Finlayson in his book, "The Red Centre" (1936, 99).

Pseudomys minnie Troughton—Finlayson gave an account of this "river rat," which is also a migratory species (1939, 94-101; 1939, 348-354). It is the pallyoora of the Wonga-nguru and ranges from Longreach, Queensland, to Lake Eyre and Ooldea, being abundant at Goyder's Lagoon. We received the same name, W, N, at Pandi. The species has a conspicuous white tail. Gason's pulyara is the Dieri name. Howitt 1904 mentioned balyara (N) and baliyara (Ya) as a small pouched mouse and as a totemic animal (p. 94, 95); and also referred to palyara (Ka, N) as the long-snouted marsupial rat (p. 646). These references should probably be to the rodent now under consideration.

Notomys aistoni Brazenor—Finlayson (1939, 103) reported that this edible jerboa mouse, called oorarrie by the Wonga-nguru, was easily captured in clay-pans by children. The related *N. fuscus* was reported to us at Ooldea to be known as darraka warra (darraka = bone, warra = long, *i.e.*, long legs).

Notomys cervinus Waite (? Gould)—Finlayson (1939, 108) stated that this species may be the wilkintie of the Wonka-nguru. He mentioned that if the animal seen by Capt. Sturt were an oorarrie, then *N. aistoni* would be a synonym of *N. cervinus* Gould, and the species described by Waite would be without a valid name. Wood Jones (1925, 343) referred to the species as *Ascopharynx cervinus*, following Waite (1900).

Cowirrie—Gason (1879, 285) called it a rat (Dieri). Howitt (1904, 796) reported that kauri was a small marsupial (Yu. Ya), a burrower, and at times migratory. His remarks suggest that it was predatory. It was called a rat by the local whites. Cowarie, a former trading centre on the Warburton, has the same name. Mr. Vogelsang recognised cowarie of the Dieri as the pale sandy jerboa mouse, identified by Wood Jones as *A. cervinus* Gould. Brazenor's *N. aistoni* is a synonym. Finlayson's term oorarrie is probably an error for cowarie. The latter author referred to *N. aistoni* (1939, 358; 1940, 135) from Ooldea and from the Eyrean region, probably from Cowarie. He also reported that dargawarra was the native name for *N. alexis everardensis* in the Everard Ranges (1940, 125).

Leporillus conditor Gould, a house-building rat, now extinct, but known to the Wonka-nguru as wopilkara (Finlayson 1939, 111-114). It has been re-described also by Wood Jones (1925) and Troughton (1923). Perhaps Gason's kulunda, "a black and white rat, similar to a house rat" (Dieri tribe) may be this species or, more probably, *L. apicalis* Gould.

Mus musculus Linn.—Finlayson (1939, 115) stated that the common mouse lived in the Eyrean region like indigenous murids, and that its Wonka-nguru name was puntapunta, and that the species (because of its having a native name) was probably present in the area for a much longer period than other introduced mammals such as the fox, cat and rabbit, which had no native names. It seems to me more likely that the name belonged originally to small native mice resembling *Pseudomys forresti* var., recorded from Mulka by Finlayson (1939, 101), or *hermannsburgensis* Waite (menkie of the Aranda tribe). The term punta (poontha of Gason) is applied to mice by the Dieri, while the Ngadjuri called them mung-u (Berndt and Vogelsang 1941). Kühn (1886, 145) recorded nantoo as a mouse, Yorke's Peninsula.

Hydromys chrysogaster Geoff.—Finlayson (1939, 114) reported the presence of this large water rat in the Cooper and Diamantina regions, its name in the latter being tinna appa (Wonka-nguru). Tinna or tidna means track or foot, and appa or ngapa is water. Howitt (1904, 95) stated that a water rat, tundubulyeru, was a totem animal in the Yaurorka tribe; bulyeru suggests palyura (= *Pseudomys minnie*), but baliyara is mentioned as a different totem of the same tribe; it is probable that Howitt's term applies to *Hydromys*.

Unidentified ? rodents—Schürmann (1844) mentioned a large number of Pangkala names of kinds of mammals which he called rats, mice or burrowing animals. Some of them may be small polyprotodonts, but he gave no indication of their identity. They are accordingly grouped together under the present heading:—bunta, mouse sp. (p. 4); inyalla, burrower (7); italla, burrowing rat (8); karnanyuru, "an animal building a nest of sticks to a great height" MS [*Leporillus*, probably *conditor*]; karpili, burrower (16), rat (p. 86); kauanna, burrowing rat (17); madla paru, yailba mirrinnye, species of animal (24)—paru = animal, game or meat, mirrinnye = similar to, yailba is a burrowing species, hence

an animal resembling the yailba; mai erri, mouse sp. (24), mai = vegetable food, *e.g.*, roots; melokunyo, mouse sp. (30); paltyarra, rat sp. (52) [the name suggests palyara, applied to *Pseudomys* further north]; pulku, mouse (59); wallumba, common rat (67) [presumably the native *Rattus greyi* which Wood Jones (1923, 301) recorded from Eyre's Peninsula]; walyari, rat or mouse sp. (67); yailba, burrowing sp. (77); yartini (paltyarra mirinya, *i.e.*, similar to paltyarra, a species of rat), spotted bandicoot (82) [this species is referred to later in this paper when dealing with bandicoots].

MARSUPIALIA

Each species probably had its particular name in each tribe. All kinds, from kangaroos to marsupial mice, were eaten. Gason (1879, 278) stated that kangaroos did not occur in the Dieri country, but that they were known to that tribe because they were seen in the country to the south [Kuyani] when men were visiting the red ochre deposits [of the northern Flinders Ranges]. Howitt (1891, 89) mentioned that the Dieri obtained skins of wallabies [*Petrogale xanthopus*] and kangaroos [probably *Macropus robustus erubescens*] from the Murdulla or hill tribes [Wailpi] and used them as coverings for corpses; but such skins were not seen amongst the Yantruwunta and Yaurorka people.

The dress of the southern Pangkala consisted of one or two kangaroo skins, or of those of several wallabies or opossums sewn together with sinews from a kangaroo or wallaby tail, an awl of kangaroo bone being used as a needle (Schürmann 1846; 1879, 210; Wilhelmi 1861, 166). The cloak was called palta, and if many skins were used, it was then termed karpalla palta (karpalla = sewn or stitched). The awl was ini Pa (Schürmann, 1844, 167) or wonabunye D, whether obtained from the leg of a kangaroo or emu (Gason 1879, 303). The kangaroo of the Pangkala must have been *Macropus major*, the opossum chiefly *Trichosurus vulpecula*, and the wallaby may have been *Petrogale lateralis* or, more probably, *Thylogale eugenii* (now extinct on the mainland). These people skinned kangaroos before cooking, whereas the more northerly tribes did not. Skins were not tanned.

Gason (1886, 119) stated that wallaby skin rugs were used by the Wailpi. Morton (1886, 158) reported that the Malyanapa used rugs made of a single kangaroo skin or of several opossum skins sewn together. A skin rug was termed dala kati by the Dieri (kati = skin), and if made from kangaroo it was called dalara (Fry 1937, 197, 271). A kangaroo skin was used for covering a corpse (Schürmann 1879, 248).

The tip of a wallaby's tail was tied to a native's beard as an ornament (Schürmann 1846; 1879, 211; Wilhelmi 1861, 167; Pangkala tribe.)

Kangaroo sinews were also used for attaching the peg to the end of the spear-thrower (midla), and the barb to the end of a hunting spear (Schürmann 1879, 213; Wilhelmi 1861, 169-170). A kangaroo tooth was utilised as a boring tool to make a depression in the end of the spear, to receive the peg of the midla. Knapsacks or bags were made from kangaroo skins by the Pangkala, that carried by men being termed nurti, while the larger one used by women was nudla (Wilhelmi 1861, 171). Bags made from skins of kangaroos and opossums, and used by the Arabana and Wonkanguru for carrying food, were referred to by M. Howitt 1902, 43. Skin bags filled with feathers were termed mana-junga D (= hand water-bag), and were beaten as percussion instruments during a dancing ceremony (Fry 1937, 270).

Certain marsupials were forbidden as food for Pangkala boys and girls; the penalties for eating the wallaby, yurridni, or either of the two kinds of bandicoots, yartiri and kurkulla, were the development of a brown (instead of black) beard and the premature arrival of the menses in the two sexes respectively (Schürmann 1879, 220; Wilhelmi 1861, 176).

Roth (1897, 102, fig. 237-238) described the method of making water-bags (nilpa) from the skins of kangaroos, pademelons and opossums. Duncan-Kemp (1933, 56), as well as Horne and Aiston (1924, 51, fig. 39), referred to them, the same term (nilpa) being used by the Wonkanguru and the tribes northward as far as the territory of the Pittapitta. Berndt and Vogelsang (1941, 7) reported wudli-jakuda and tjukuru-jakuda as the Ngadjuri and Dieri names respectively for these water-bags (wudli, tjukuru = kangaroo; jakuta, yakuta = bag). Morton (1886, 158) stated that opossum skins were utilised as water-bags by the Malyanapa tribe. The use of sinews and hair string in addition to resins (from *Triodia* or from *Leschenaultia*) for the fixing of an axe head (kalara) in its handle was described by Horne and Aiston (1924, 104-105, fig. 75).

Cleland and Johnston (1939, 175) referred to the use amongst the Wailpi of broombush, *Templetonia cynea*, to cover traps or pits dug along wallaby pads to catch rock wallabies, *Petrogale xanthopus*, and euros (*Macropus robustus*). Berndt and Vogelsang (1941, 7) mentioned as general terms for kangaroo, gndla Nj, and tjukuru D, but both of these are applied to the red kangaroo. Duncan-Kemp 1933, 285, referred to the use of bolas, pit traps and game traps made of rough palisades for capturing kangaroos.

The aborigines believed in the existence of huge animals and trees in ancestral times (mura of the Dieri and allied tribes; jelkura of tribes further north; and altjira of the Aranda tribes to the north-west). A muramura killed an enormous kangaroo and pegged out its skin, the place where this happened becoming Lake Eyre (Stirling and Waite 1919, 109). Taplin (1879, 55) reported that the natives of the lower Murray believed that their chief ancestral beings hunted mighty kangaroos and the places where the skins were pegged out became denuded of grass and changed into salt lagoons.

The native names for kangaroo, given later, fall into a few groups, one of which represented by thaldara or thaldra of the Cooper's Creek tribes becomes thuldra amongst the tribes of the Wilson River (a tributary of Cooper's Creek in south-western Queensland, near the New South Wales border), thurlda or tulta amongst the Darling River tribes, and tulatyi amongst the Narrinyerri of the lower Murray (Curr 1888, 168-169). The last name is of interest as it is the only native name for a kangaroo or large wallaby (except Cook's wallaby) which was taken over and received wide usage amongst the whites. The original kanguru, *i.e.*, the species seen by Captain Cook at Endeavour River in North Queensland, is now known to be a wallaby, *Macropus (Wallabia) kanguru*. Tulatyi is obviously the toolach (or more correctly toolachi or toolache) of the south-eastern part of South Australia, a species (*Wallabia greyi*) whose last known surviving member died in captivity a few years ago and is now preserved in the South Australian Museum.

Macropus rufus—The many names received from Curr's correspondents (1886) as applied to the kangaroo in our region must refer to this species, since it is the red kangaroo which occurs there:—koongoora A, Todd; kungara A, Jacobs; koongaroo A, Warren and Hogarth, Warren. Chookaroo D, Gason, Jacobs; chookeroo N, Paull; chookooroo N, Cornish — Ya, Salmon, Cornish; chukeroo Wa, Crozier; tchukuro Yu, Howitt; yschnckuru W?, Jacobs. Kurdloo Pa, Sawers; kudla Nu, Valentine; koodla Pa, Green; oodloo Wp, Wills; coordloo Pa, Beddome; oordloo Wp, Phillipson; kurloo Wi, Dix; koola B, Sullivan; ooloo Wp, Gason; koodla Ja, Pa, Green; kulla Wk, Myles; coola Kg, Heagney; koorra Kw, Anon. Thurlda Wa, Dewhurst; talda Ma, Morton; tharlta Ma, Reid; thuldra Te, Foott; thaldara Te, Sullivan and Eglinton. Balcun Ku, Heagney; palgan Bi, Curr. Koonabulla Ky, Machattie. Cutchira Kg, Heagney. Matumba Pp, Eglinton. Yarnda K, Kingsmill.

Other references are as follows:—chookaroo D, Gason 1879, 285; tchukuru D, Howitt 1885, 6; chookooroo Ka, Wells 1894, 521; kungarra A, Helms

1896, 316; koongarra W, Finlayson 1936, 157; tjukuru D ?, Stirling and Waite 1919, 135, toa 156; wudlu (male) Nj, Wp, waulwi (female) Nj, Berndt and Vogelsang 1941, 7; wudlu Wp, Hale and Tindale 1925; 57; koordloo Pa, Sawers 1886, 132 (Gawler Ranges); koolabila Dk, Duncan-Kemp 1933, 242; kupirri Pa, Schürmann 1844, 21, white kangaroo, corrected in MS to red kangaroo. It is known as okira amongst the Aranda; and mal-lu at Ooldca. Schürmann (1844, 22) mentioned kurdlu as "an animal of the Marsupian species," but the same term was reported by Sawers (kurdloo) and Beddome (oordloo) for the kangaroo in the northernmost part of the Pangkala territory, where the species would be *M. rufus*.

Howitt (1891) mentioned chukuru D, totem (p. 38); taldra Kd, totem (p. 39). In his later book (1904) he gave many references to the kangaroo as a totem animal amongst the tribes of our region:—chukuro N (p. 657), chukuru N (p. 94), taldra Kd (p. 97), tirlta Wi (p. 98); turlta and thurlta of the Darling and Paroo tribes (p. 98-99). Berndt and Vogelsang (1941, 7) mentioned as general terms for kangaroo, gudla Nj, and tjukuru D, but both of these are applied to the red kangaroo.

The red kangaroo does not occur in the southern part of the Pangkala region, where the dominant vegetation is the mallee which constitutes the home of *M. major*. The reason for its absence is supplied in a local legend published by Schürmann (1846; 1879, 239-240) and re-published by Wilhelmi (1861, 193; 1862). Cawthorne (1858) also wrote an account of it, and in his second edition gave a metrical version. Schürmann suggested that a specimen of *M. rufus* must have found its way south. The animal in the legend was called Kupirri (Kuperree in Cawthorne, edit 2) and was stated to be of huge size and to have devoured all who had attempted to spear it. The natives were stricken with terror when they saw it and threw away the spear-thrower (midla) along with the spear, hence their aiming was ineffective. Two hunters, Pilla and Indya (Indya of Schürmann 1844, 5; Wilhelmi 1861, 193; Inda in Cawthorne, edit. 2), tracked the animal to the north, and finding it asleep at once attacked it, but their spears became blunt before they could kill it. This disappointment led to their quarrelling, Pilla stabbing Indya several times with a blunt spear, but while doing so he received a severe blow on the nose with a spear-thrower. After reconciliation they again attacked Kupirri, killing it. On opening it they found the bodies of their devoured tribesmen, who became restored to life and assisted in cooking and eating the monster. The two heroes were metamorphosed into animals, still known by their names; Pilla became the opossum and the scar on the injured nose is still indicated by the longitudinal furrow which it bears, while Indya became the native cat whose former spear wounds (caused by Pilla) are indicated by the white dots distributed over the skin. The latter part of the legend relates, of course, to *Trichosurus vulpecula* and *Dasyurus viverrinus*.

Macropus major syn. *M. giganteus*—The grey kangaroo from the southern portion of the Pangkala territory was this species. Warru, Taplin (1879, 131—nante, Adelaide tribe), Schürmann 1844; warroo Pa, Sawers (1886, 132), Gawler Ranges; bulka, warru Pa, Le Socuf and Holden 1886, 8.

Schürmann (1844) mentioned the following Pangkala terms:—warru (p. 53); warruparu, kangaroo meat (p. 54), paru = meat, game, animal; warru puppa, joey—puppa (? European term, puppy) = young one, pup (p. 53); ngudli, pouch of kangaroo or other marsupial (p. 47); pulka or bulka (= old), "old man" kangaroo (p. 59); wakkari, female kangaroo (p. 65); warrukatta, kangaroo hunt (p. 70); wantyukko, young kangaroo; kadlukko, fully-grown kangaroo (p. 9); kulyara, young male (p. 20); muuta, net-bag made of kangaroo sinews (MS).

Macropus robustus (erubescens)—Manja Wp. Hale and Tindale (1925, 57); juru Nj, manja Wp. Berndt and Vogelsang (1941, 6). It will be noted that the white man's name (euro) for this sturdy mountain kangaroo in South and Central Australia is that given (juru) by the Wailpi of the northern Flinders Ranges. Wallaroo, also a native term, is its eastern Australian name and was mentioned by Cunningham when writing in 1827 of New South Wales. Kunnulla is applied to it at Ooldea.

Petrogale xanthopus, rock wallaby—Andu Wp. Hale and Tindale 1925, 57; gandu Nj, andu Wp. Berndt and Vogelsang 1941, 10. Finlayson (1936, 158) gave karndoo as the Dieri name for a wallaby-like animal and suggested that it might belong to *Macropus robustus* or *Petrogale xanthopus*; it is obviously the same as gandu. It seems to me likely that gunda (Nj) of Berndt and Vogelsang (1941, 10), a small wallaby, is the same; also karndo Pa. Green 1886, 126 (east of Lake Torrens); and karndoo Pa. Beddome 1886, 133 (between Quorn and Lake Torrens). The species occurs in the Flinders Ranges.

Petrogale lateralis—Wood Jones (1924, 228) believed that the rock wallaby from the hilly country west of Lake Torrens probably belonged to this species, whose range extends to Central Australia. Kunoo Pa, Sawers 1886, 126, Gawler Ranges. Kunna Pa, Schürmann 1844, 21, kangaroo sp., is almost certainly the same species.

Wallaby—Yurridni Pa, Schürmann 1846, 87; 1879, 220; Wilhelmi 1861, 176; 1862; yuridni Pa, Schürmann 1844, 87; yumballa Pa, Schürmann 1844, 86. Reference to the use of skins as clothing has already been made.

Schürmann's names and remarks suggest that there were at least two species of wallabies in that part of Eyre's Peninsula. *Thylogale eugenii*, now extinct on the mainland, was probably one kind, while the other may have been *Lagorchestes* or *Onychogale*.

Howitt and Siebert (1903, 528) gave an account of a Dieri legend in which reference was made of a kind of wallaby, mari, which was killed by a muramura who converted its skin into a large water-bag. This same legend was repeated by Howitt (1904, 804-806). The latter (1891, 39) mentioned as names of wallabies and totems, kokola (Yandairunga, i.e., Antikirinya) and korinya, a small species (Kurnandaburi, i.e., Karendala), but the former has been termed by him (1904) a bandicoot (p. 97) and a pouched mouse (p. 95); while korinya (p. 91) was referred to as a small burrowing rat. Roth 1897, 34, recorded kokola Pp. as a bandicoot.

Howitt (1904, 98) recorded bauanyal Wi, and bauanya Mi, as names for the pademelton [? *Thylogale*]; and wongaru Wi, and muringa Mi, as the respective tribal names for the local small wallaby from the north-western corner of New South Wales. Roth (1897) reported ka-la-wari as the Pittapitta term.

Wallaby—Gason (1879, 285) gave kulkuna as the Dieri name for a "very swift" wallaby. I suspect that it was the hare wallaby, *Lagorchestes* sp. (? *leporoides* Gould), concerning whose speed Gould stated that for a short distance it was more fleet than that of any others known to him. Wood Jones (1924) considered that it was now extinct in South Australia. Le Souef and Burrell (1926, 214) mentioned as *Lagorchestes* a small, very fast, hare wallaby from Lake Frome; the species was not noted, but appears to have been *L. hirsutus*. Finlayson (1936, 158) stated that *L. conspicillatus* occurred in the region further north, its range extending from the east coast almost to the Simpson Desert but was absent from the Eyrean basin. He went on to state that Sturt may have seen *Lagostrophus fasciatus* in the plains of the interior. In 1927 he gave an account of the "native hare," *Lagorchestes leporoides* (1927, 370). Mrs. Duncan-Kemp (1933, 286) stated that the hare wallaby was called a "grass rat."

Scrub wallaby—Wadla Nj, Berndt and Vogelsang (1941, 6). This is the same term (wudlu) as those authors mentioned for the male red kangaroo, *Macropus rufus*, which is certainly not a scrub wallaby. Perhaps the term is to be regarded as a general one in the region for kangaroos and wallabies. The scrub kangaroos of South Australia are *M. major* and its subspecies, *melanops*.

Bush wallaby—Gason mentioned the presence of a bush wallaby known to the Dieri as kaunoonka (1879, 285). Finlayson (1936, 158, 160) referred to kanunka as the Wonkanguru term for a marsupial (Potoroinae, resembling *Caloprymnus*) from the very arid regions from which that tribe migrated to the Diamantina, and suggested that it was perhaps *Bettongia lesueurii*. It is of interest to note that Strehlow (1903, 62) reported that tnuke was the Aranda term for the latter. Howitt (1891, 38) recorded kanunka as a bush wallaby and totem (Dieri). In his book (1904) he mentioned kanunga as a kangaroo rat and as a murdu (totem) amongst Eyrean tribes, D (p. 91), Yu (92), Ya (95); but he must have been in error when he reported (783) that it was a rabbit bandicoot, *Parogale lagotis* (sic). Fry (1937, 287) recorded kanunka D, as a kangaroo rat.

Since Gason distinguished the local kangaroo rat as wurtarrie, it is possible that kanunka may have been another of the hare wallabies, *Lagorchestes* or *Lagostrophus*. Howitt called watari (1904, 783) and kanta-wateri N (p. 94) each a kangaroo rat (totem). Kararjili D, Fry 1937, 190, rat wallaby.

Caloprymnus campestris Gould, plain rat-kangaroo—This animal, described in 1843, from the stony tablelands and open plains of northern South Australia, was not heard of again until rediscovered by Finlayson (1931, 162; 1932, 150), who gave an excellent account of its habits and capture in the Diamantina region and published a series of photographs of this interesting little animal in his book, "The Red Centre" (1936, 96-104). He reported (1932) that it was known to the Yelyendi and to the Wonkanguru (who adopted the Yelyendi name) as oolacunta, to the Yaurorka as coorgee, and to the Dieri as wirtiree. Tate's record of it from the Head of the Great Australian Bight, where the name weelba was applied, was considered to be an error, based probably on another rat-kangaroo, *Bettongia* sp. Brief mention was again made by him (1936, 159). Gason (1879, 285) referred to wurtarrie as the Dieri term for a kangaroo rat, Howitt (1904, 94, 783) calling it wateri and watari. Coorgee suggests kurka D, W, reported by M. Howitt (1902, 408) as a kind of kangaroo rat; and kulka Pa, Schürmann.

Bettongia ogilbyi Gould, closely allied to the eastern form, *B. penicillata* Gould—This rat-kangaroo was formerly widely distributed and common in South Australia, but Wood Jones (1924, 214) stated that it had become extremely rare in this State in a very short time. Le Brun (1886, 142) gave bookurra as the name of the kangaroo rat in Ngadjuri territory; and Browne (1897, 72-73) indicated the native method of using the leaves and stems of *Xerotes* (= *Lomandra*) *effusa* to smoke out these animals (bokra) in the "lower North," presumably by the Ngadjuri tribe. Green (1886, 126) gave the term oolka and boorachie as Pangkala names, the former being obviously kulka Pa (Schürmann 1844, 19), while boorachie suggests poorakie, an Adelaide term (presumably aboriginal) for a rat-kangaroo. Poorakie may be the same term as purroilko, a species of kangaroo, recorded by Moorhouse 1935, 37, for the adjacent Murray River tribe.

Cawthorne, in his notes to his version (2nd edit.) of the Kupirri legend, mentioned yerke as a rat-kangaroo. Howitt reported pirrapirra (1904, 97) and wirijura (1891, 39) as names of rat-kangaroos amongst the Kurmandabiri people [Karendala tribe], and madura (1904, 789) amongst the Arabana. Schürmann (1844) recorded ngandalla (p. 44) and purrai (p. 61, a large species) as rat-kangaroos, Pa.

Phascolumys sp., wombat—Yalpu Wp (also totem), Hale and Tindale 1925, 57. Berndt and Vogelsang (1941, 10) recorded yalpu Wp, and watu Nj. Warto Pa, Schürmann 1844, 70; wartundu yappa Pa, wombat hole, Schürmann 1844, MS. The kaurna also applied warto to the animal (Teichelmann and Schürmann 1933, 152), which is known as wardu to the Wurring tribes along the Great Australian Bight. It seems to me that all these references relate to a *Lasiorhinus latifrons* Owen, judging from the known range of the two South Australian species as given by Wood Jones (1924, 268).

Trichosurus vulpecula, common opossum—Pildra, rare in Dieri country (Gason 1879, 285). Reference has already been made to a Pangkala legend regarding the red kangaroo (kupirri) and the opossum (pilla), as recorded by Schürmann and others.

The following names were supplied by Curr's contributors (1886):—pildra D, Gason — D, Jacobs; pilta Wi, Dix — Ma, Morton — Wa, Dewhurst; pilla Pa, Sauer — Le Souef and Holden; pilda A, Jacobs; peelda Ja, Green; peedla Pa, Green; pilka W?, Jacobs; pillpa Pa Sauer; bilda K, Kingsmill — Wp, Gason — Nu, Valentine — Wp, Phillipson; bilta Wp, Wills. Wombla A, Warren and Hogarth; womboola A, Todd; wampala N, Cornish. Marloo N, Paull; murloo Ya, Salmon; mullo Ya, Cornish; murlu Wa, Crozier; burloo Kw, Anon — Ky, Machattie. Warnunga Kg, Heagney; warnonga Ku, Heagney; woornanga Bi, Curr; yoranga Ma, Reid. Murrathurra Te, Sullivan and Eglinton — Te, Foott. Koorakunnia B, Sullivan. Cothera Kg, Heagney. Tinaballi Pp, Eglinton. Gurrigen Wk, Myles. Curr (1886, 168-169) pointed out that bilta was the common term on the Darling River and pilta on Cooper's Creek.

Hewitt (1904) recorded mirraltiera Kd (p. 97), yaranga Wi (98), and verilpari Mi (98), and muruthera Kd (1891, 39) as a totem animal. Wimbula A, Helms 1896, 316; pilla Pa, Schürmann 1844, 56. Finlayson (1936, 160) mentioned unta as its name along the Diamantina and Cooper, but the term does not resemble any of those reported above, but it suggests antana, the Aranda name for the species (Strehlow 1908, 62), and wainta which is applied by the Everard tribes (Helms 1896, 317). Stirling and Waite (1919, 146), toa 248 W, referred to the mortal combat between the muramuras, Pildra and Yikaura; the latter is the native cat, *Dasyurus geoffroyi*. Berndt and Vogelsang (1941, 7) recorded the opossum as bilda Nj, and pildra D. It was known to the Adelaide tribes as pilta.

Opossums were eaten. Amongst some tribes their skins were sewn together with kangaroo sinews to form rugs. The latter were called bilda-palda [palda = cloak or rug] amongst the Ngadjuri, while a pad made from the skin was called walka by the same people (Berndt and Vogelsang 1941, 7). Myles (1886, 36) stated that opossum rugs were rare amongst the Wonkamarra; they were worn by the Malyangapa (Reid 1886, 178). Schürmann (1846; 1879, 210) mentioned that opossum skins were rarely used as clothing by the Pangkala, and described the mode of preparing them; he also stated that string made from the fur of this animal was worn round the head and neck of men and was woven into nets for the head and for pubic tassels (p. 211, 230, 233).

Schürmann (1844) reported the following Pangkala terms relating to pilla (p. 56), the opossum:—pilla butti, pilla putti, opossum hair (p. 4, 5, 6) butti or putti = hair or fur; kundindi, belt or girdle made from (spun) fur of this animal (p. 20); malberinye, phallocrypt (ngulta, p. 48) consisting of tassels made from opossum fur (p. 25); manga, thread or yarn spun from the fur and woven around men's heads (p. 26), this head band being termed ngarkiri (p. 46); womballa, female opossum (p. 75); and yarndi kuibo, the peculiar odour of opossums (p. 81).

Pseudochirus laniginosus, Ring-tail opossum. Pipara Pa, Schürmann 1844, 57.

Thalacomys lagotis (*Peragale lagotis*; *Macrotis lagotis*). Bilby, pinto, pinkie, native rabbit; the largest species of the genus which includes all the rabbit bandi-

coots. Capietha [Kapi-ta] D, Gason 1879, 285, native rabbit. Roth (1897, 33) used the term bilbi, but expressed doubt whether it was the local Pittapitta name. Howitt (1904) gave many references to rabbit bandicoots as totem animals in the Eyrean region, and associated the name *Peragale lagotis* with them, though it is quite possible that allied species (not then recognised scientifically) were included: —píra-moku, kapita, D (p. 91), N (94); talka, W (92), A (94), nara-moku, Yu (92) [moku = bone or hard structure], Ya (95); kapita, D (646); he also referred (p. 794-797) to kapita in his account of the Anti-etya and Ngardu-etya legends (anti or nganti = flesh; ngardu = nardoo, sporocarps of *Marsilea Drummondii*; etya = eaters—thus flesh and nardoo eaters) (p. 794-797). Eylmann (1908, 167) recorded piramukku (*Perameles lagotis*) as a Dieri murdu (maddu).

Hale and Tindale (1925, 46, 57) mentioned the pinto (presumably following Waite 1917, 433, in using this term) or rabbit bandicoot (which they did not identify) as a totem animal called wara by the Wailpi of the northern Flinders Ranges. I am not able to state which variety of *T. lagotis* occurred in that region; probably it was *T. sagitta*. It might be mentioned that the Kaurna tribe used pingko for a small burrowing animal with a white tail (Teichelmann and Schürmann 1933, 137), obviously *Thalacomys lagotis*—hence the corrupted term pinto.

Wood Jones (1924) gave an account of the South Australian species and stated that the typical *T. lagotis* was now probably extinct in this State, its last known habitat being near Lake Alexandrina. Troughton (1932) considered the animal from the lower Murray as a distinct subspecies, *T. lagotis* var. *grandis* Troughton. The Barcoo bilby was reported by Wood Jones as *T. sagitta* which lived in the great drainage system of Lake Eyre and whose Dieri name was kapita. urgata being applied to it [by the Aranda] at Charlotte Waters. He published a key (p. 154) to the various species. Krefft in 1866 stated that the name for the rabbit bandicoot amongst the natives of the lower Murray was wurrapur. This term closely resembles wirrappo, reported by Moorhouse (1846) as that applied to a "small mammiferous animal" by the aborigines of the Murray, between Mannum and Morgan.

Finlayson (1930, 178) stated that Thomas' *T. sagitta* from Killalpaninna was near *T. lagotis*, and in a later paper (1935, 233) recorded it as a variety of the latter, mentioning that it was the kapita of the Dieri and thulka of the Wonkanguru. Wood Jones (1924, 164) had reported that thulka was its name amongst the Kukata people and was commonly changed into talkie by the local whites. Two of the Dieri toas (75, 169) described by Stirling and Waite (1919) relate to kapita (*T. lagotis*).

Thalacomys leucurus—The Eyrean form was described by Finlayson (1932, 168) as *T. minor* var. *miselia* and was stated (1935, 227) to be known to the Wonkanguru as yallara. It was more common than the kapita. He believed that *T. leucurus* Thomas was a synonym of *T. minor* Spencer. Troughton (1932, 231) discussed *T. minor* and considered that the specimen from Mungeranie, identified by Le Souef as *T. leucurus* Thomas, belonged to Spencer's species (*minor*), whose native [Aranda] name at Charlotte Waters was urpila. Iredale and Troughton (1943, 20) regarded *T. minor* (vars. *minor* and *miselia*) as distinct from *T. leucura*, but in his recent work, Troughton (1941, 74) considered *minor* as a dark phase of *T. leucurus*, and *miselia* as representing the typical adult stage of Thomas' species.

The tails of the various species are striking because of their whiteness and of the black tip varying in length according to the species or variety. They are used extensively for ornamental purposes by Central Australian natives, the term tippa or thippa being used in the Eyrean region, but some authors have applied it also to "rat tails." Apart from the water rat, *Hydromys*, *Pseudomys minnie* and *Leporillus apicalis* (from the lower Darling and Murray), I do not know of any

native rodent in that area possessing a white tip to the tail. These tails, singly or in bunches, are tied to the end of the beard or elsewhere. Gason (1879, 289) stated that the Dieri gave the name thippa to a bunch of tassels made from tails of native rabbits, about fifty being needed to make an ordinary tippa to be used as a phallocrypt. When the latter was made from fur of rats or wallaby it was called uupa. Presumably "rat" in this latter case referred to a true rodent such as *Rattus villosissimus* or *Pseudomys minnie*, Paull (1886, 18) mentioning that the Ngameni wore a pubic fringe spun from the fur of rats, while Sanger (1883) stated that anpah [unpa of Gason 1879] was a phallocrypt of twine made from the fur of animals. Howitt and Siebert (1903, 530) used the term tippa for the pendant made from tails of the rabbit bandicoot. Gason stated (p. 272) that thippa were fastened to the prepared hair of the head of initiates at the mindarie (or peace) ceremony in such a way that the ends of the tails (of rats) hung down over the shoulders. Howitt (1891, 84; 1904, 662) gave similar information (based on Gason). Fry (1937, 201) reported the term as tipi D.

Howitt (1904, 646-650) referred to a Karanguru and Ngameni legend concerning the muramura, Malku-malku-ulu, a Ngameni name whose Dieri equivalent was Tippa-tippa-ulu, meaning "the two with the tippa," a pubic tassel made from the tails of kapita, *Peragale lagotis*. This tippa was worn as a phallocrypt only by circumcised men (p. 647), but men of a pinya (revenge expedition) wore it fastened to the beard. There is also a reference (p. 805) to another muramura wearing a tippa. The ornament is called alpita by the Aranda (Spencer and Gillen, 1899, 646). Stirling and Waite (1919, 114) referred to kararitji (toa 5) as the string spun from the fur of the tails of the "white kapita, probably the rabbit bandicoot, *Thylacomys lagotis*," by a muramura (Tirari tribe).

Horne and Aiston (1924) mentioned telca W, as a white rat and stated (p. 9) that there was a native legend that, before the arrival of the white man there had been a very luxuriant season on the Diamantina and Warburton, but there followed an immense fire which swept down almost to Lake Eyre, many of the blacks being burnt to death. Willoo, the plover (stone plover or curlew), being a cunning bird, turned himself into a stone and watched the blaze, but Telca (the ancestral telca) saved himself by burrowing deep in the earth until the flames had gone by. Two mooras who were stated to have been the cause of this conflagration, decreed that, ever afterwards when fire was being made, special precautions must be taken. Telca is the rabbit bandicoot, *T. lagotis sagitta*.

Bandicoots—Wood Jones (1924, 140) stated that *Isoodon obesulus* was formerly common all over South Australia but was now on the verge of extinction. Finlayson (1931, 161) also referred to this fact. Waite (1917, 433) reported finding remains of the species in the pellets of an owl near Lake Perigundi.

Finlayson (1935, 235) obtained from old natives in the Wonkanguru area an account of two species of Peramelids, one of which was possibly a small *Perameles* and the other probably *Chacropus castanotis*. The latter was recorded from Cooper's Creek by Wood Jones (1924, 171), who stated that its Kukata name was wilyalya. Burkuna was the bandicoot totem amongst the Wilya tribe (Howitt 1904, 98). Le Brun (1886, 142) mentioned mully as the Ngadjuri name for a bandicoot; kurkulla Pa, Schürmann 1844, 23; kurkulla Pa, Schürmann 1879, 220; *Isoodon obesulus* is a probable identification.

Schürmann (1844, 82) mentioned yartini Pa, as a spotted bandicoot, an animal similar to paltyarra, a species of rat. It was recorded later by him (1879, 220; Wilhelm 1861, 176) as yartiri Pa, bandicoot. If for spotted we read parti-coloured it may refer to *Perameles eremiana*, described by Spencer from Central Australia; but if we interpret spotted as indicating obvious variations in pelage colour as well as the presence of marked dark or light barring, then *P. myosura*,

a species known from the region of the Gulfs and extending west to Western Australia is a probable identification. What is the status of Gason's kooraltha, a "spotted ferret"? It is suggested later in this paper that it may be *Dasyurus viverrinus*, but it may perhaps be one of the bandicoots just mentioned. According to Troughton (1941, 67), *P. myosura* occurs from Ooldea to the Swan River, but formerly ranged easterly to the head of St. Vincent Gulf and the Murray.

Dasyurus geoffroyi Gould, northern native cat, *Dasyurinus geoffroyi*, according to Iredale and Troughton 1934. Tickawara [tjikawa-ra] D, Gason (1879, 285), eaten; tikanara [?error for tikauara] D, Howitt (1891, 38), murdu. Several toas (No. 70 T, 90, 107 W, 248 W) mentioned by Stirling and Waite (1919), have relation to the muramura, Yikaura. Berndt and Vogelsang (1941, 5) gave aku-indji and jikaura as the Ngadjuri and Dieri names respectively. Roth (1897, 33) recorded it as ik-oo-urra Fp.

Howitt (1904) mentioned the native cat as a totem animal in many tribes, e.g., yikaura D (p. 91), N (94), Ya (95), yirauka (96, error for yikaura); piramoku, tribes to the south-east of Lake Pando (782); yikaura, tribes to the south of Lake Pando (783); but he also termed piramoku D, N, a rabbit bandicoot (91, 94). It is a very important totemic animal, achilpa, tjilpa, of the Aranda. Sawers (1886, 132) recorded gedna Pa. from the Gawler Ranges, Pangkala. Finlayson (1933, 202) stated that the Dieri referred to the presence on the Barcoo of a spotted animal, yikaura, which had not been seen for many years, and that it was probably *Dasyurus* sp. The disappearance of native cats from South Australia and eastern Australian localities was referred to by Wood Jones (1923, 92, 94), who mentioned that the allied species, *D. viverrinus*, used to occur along the Murray River in South Australia.

Horne and Aiston (1924, 57) mentioned a legend from Beltana (Kuyani) relating to the native cat, which when first seen had a smooth black coat. The natives speared the unknown animal, piercing it in many places, the injuries being now represented by the white spots. This legend differs considerably from that previously mentioned when dealing with the red kangaroo, opossum and native cat.

Gason (1879, 285) mentioned kooraltha as the Dieri name of the spotted ferret. As far as I know, the only spotted marsupials in Australia (apart from the cuscus, *Spilocuscus nudicaudatus*, from Cape York Peninsula) are species of *Dasyurus*. Since Gason recorded tickawara as the Dieri name for the native cat, it is probable that, unless these two terms referred to the same species (Gason being unaware of it), two species of *Dasyurus* may have been known in the region.

Dasyurus viverrinus (= *D. quoll* Zimm. according to Iredale and Troughton's check-list, 1934, 12). Native cat—Schürmann 1844, reported the following Pangkala terms: idnya (p. 5); idnya yappapaityapaitya (p. 79), yappa = hole, hence perforated, spotted; paitya = angry, quarrelsome, thus the term means the very quarrelsome spotted "cat." The term was reported as indya in the Kupirri legend as reported by Schürmann (1879, 239) and referred to earlier in the present paper. The animal was called ngrui moch (= many spots) by the Murray natives, according to Wood Jones (1923, 92). Moorhouse (1846; 1935, 24) reported that it was termed mabong by the Moorundie natives who lived along the Murray River between Morgan and Mannum (according to Tindale's preface to Moorhouse's reprinted work, 1935), and belonged to the Ngaiawang tribe (Tindale 1940, 180). Teichelmann and Schürmann (1840; 1923, 111) stated that it was known as mabo amongst the Kaurna tribe of the Adelaide plains. It is quite possible that Berndt and Vogelsang's Ngadjuri term, aku-indji (1941, 5), may refer to *D. viverrinus* (indya, idnya), rather than to *D. geoffroyi*, the terms being similar.

Sminthopsis crassicaudata centralis Thomas—Finlayson (1933, 197) recorded this variety of fat-tailed pouched mouse from the Wonkanguru region, where it

was called *nilee*. Thomas, in 1902, had already reported it from Killalpaninna in the Dieri area of Cooper's Creek. Its resemblance to the shrews of the Northern Hemisphere was noted by Wood Jones (1923, 112). Waite (1917, 454) reported finding it in the Cooper's Creek region where it is preyed on by white owls, *Tyto alba delicatula*.

Sminthopsis larapinta Spencer was reported by Finlayson (1933, 199) from the Wonkanguru region, where its name was *melatjhanie*.

Dasyercus cristicauda Krefft—Finlayson (1933, 200) gave an account of this small Dasyurid as *Chaetocercus cristicauda hillieri* Thomas from the lower Diamantina, where its Wonkanguru name is *mudagoora*. Wood Jones (1923, 103) wrote of it as *Chaetocercus cristicauda* whose name at Ooldea was *mulgara*, and at Charlotte Waters was *amperta* (Aranda), but later (1924, 132) pointed out that the correct generic name was *Dasyercus* which took priority over *Amperta* Cabrera (based on its Aranda name), *Chaetocercus* being already pre-occupied. Iredale and Troughton (1934, 8) placed *Phascogale hillieri*, described by Thomas in 1905 from Eyrean material, in the synonymy of Krefft's species, as also did Troughton (1941, 34).

Howitt (1904, 791) stated that *madagura* was a small marsupial (Arabana), and he referred (p. 789) in the same legend to "madura, the kangaroo rat, whose burrow (like that of any animal which threw the earth out behind it) was called *pul-yundu*." Whether *madura* and *madagura* are the same animal I cannot say, but it may be mentioned that Howitt often applied the same name to different animals, as will be shown below. Finlayson's observations identified *madagura* as *Dasyercus*.

Notoryctes typhlops Stirling, marsupial mole—Duncan-Kemp (1933, 66) mentioned that this animal, *kakoma* of the tribes living amongst the sandhills west of the territory occupied by the Pittapitta and related tribes, was eaten by the natives and the skins were used for ceremonial purposes and for making loin cloths. Roth (1897, 33) stated that *kokoma* Pp, was a rat. Finlayson (1935, 235) mentioned that there was no scientific confirmation of the presence of the mole in Queensland and that it was not recorded in Longman's list (1930) of the mammals of that State. The region, however, lies in the great arid sandhill region whose zoology has not yet been satisfactorily investigated, and the presence of the animal there is likely. Spencer (1896), in the Horn Expedition Reports, recorded its occurrence as far south as Charlotte Waters. I have obtained it from Ooldea, from which locality Wood Jones (1923, 128) has already reported it; its name there is *aru-dharra-da*.

MAMMALIAN NAMES NOT IDENTIFIED

Maiaru—Finlayson (1936, 99) stated that all mammals smaller than a kangaroo were called rats by the local whites in the lower Diamantina area, though the native name applied to *Rattus villosissimus* by the Wonkanguru was *miaroo*. Gason's Dieri term *miaroo* probably belongs to the same species, since he mentioned other kinds of rats. Howitt (1904) used the term *maiaru* as the name of a totem animal (a rat), amongst the Dieri (p. 91) and Wonkanguru (92), but he termed it a marsupial rat (782) in the northern part of the Eyrean basin—probably an error. In an earlier paper (1891) he used the term for a rat.

Punta—Gason said that *poontha* D was a mouse. Finlayson stated that *puntapunta* W was *Mus musculus*. Mr. T. Vogelsang informed me that the duplication of a term in the name of a plant or animal might mean a young or small form of the same kind, so that *puntapunta* might mean a small kind of mouse. Howitt (1891, 38) called *punta* D a mouse; but later (1904) called it a shrew mouse (p. 91), Dieri (91). Yantruwunta (92) and Yaurorka (95); but reported it to be a small marsupial (783) amongst the south-eastern totems of the Eyrean

area; he also stated that it was a small marsupial which was called a rat by the local whites. Schürmann 1844, 61, reported that punta Pa was similar to marnta and that the latter was a marsupial.

Palyura—Gason called pulyara D a long-snouted rat. Finlayson recorded pallyoora W as *Pseudomys minnie*. Howitt (1904) mentioned amongst totem animals a small pouched mouse, balyara N (p. 94), baliyara Wo (95); palyara, a long-snouted marsupial rat eaten by the Karanguru and Ngameni (646); and palyara, a small marsupial (a totem animal in the northern part of the Eyrean basin. Schürmann 1844, 52, recorded palyarra Pa as a rat. *Pseudomys* spp. can scarcely be called long-snouted rats; hence the possibility of the term being applied in the northern portions to a native mouse, *Pseudomys* spp. as indicated by Finlayson, and elsewhere in the area to some marsupial mouse like a *Sminthopsis*. Eylmann (1908, 167) reported paljara as a rat (Dieri totem). The name tundu-bulyeru was reported to be used for the water rat; bulyeru seems to be the same term as palyaru, p and b being interchangeable in most native words.

Kokula—Howitt (1891, 39) called kokola Kd, a bandicoot. Later (1904) he reported as a small marsupial kokula D (p. 91), W (92), A (94), N (94); a pouched mouse, kokula Wo (95); a small bandicoot, kokula Kd (97); marsupial rat, kokula (totemic in the south-eastern part of the Eyrean basin). Stirling and Waite (1919, 149), in referring to toa 275, mentioned kokula as a species of rat which carried its young on its back. Roth (1897, 34) recorded kokola Pp as a bandicoot. Troughton (1941, 35) mentioned that the young of *Sminthopsis* and (p. 307) of some rats, including *Conilurus albipes*, could cling to the fur of the mother and thus be carried by the latter. The available evidence suggests that kokula is probably a small Phascogaline marsupial, e.g., *Sminthopsis* sp.

Other "rats" and "mice"—Koolchic D, a rat; koonappoo D, a species of mouse; kulunda D, a black and white rat; all reported by Gason (1879, 285). Karapana D, a mouse (Howitt 1891, 38); karabana D, a small mouse (Howitt 1904, 91, 783); korinya Kd, a small burrowing rat (Howitt 1904, 97), termed a small wallaby in a previous paper (1891, 39); kunamari Yu, rat (Howitt, 1904, 92), mari was stated by Howitt and Siebert (1903, 528) to be a kind of wallaby; parina Kd, rat (Howitt 1904, 97); myara A [maiaru], rat, Warren 1886, 112. Duncan-Kemp (1933, 14) mentioned "blue poorakies" and paely ooras (desert rats and mice) as being collected in the sandhill country near Farrar Creek [Karuwali tribe].

Other marsupials, probably Dasyuridae—Gason (1879, 285) mentioned three Dieri names for "native ferrets":—thillamillarie; arutchic; and a "spotted ferret," kooraltha. It has already been suggested that the last may be a species of *Dasyurus* other than *D. geoffroyi* (e.g., *D. viverrinus*); the other two were perhaps *Phascogale* and *Dasyuroides*. Padi-padi Yu, a pouched mouse (Howitt 1904, 92). Nidla D, Ya, Yu (Howitt 1904, 796), a small marsupial called a rat by the whites; is this Finlayson's nilce, *Sminthopsis crassicaudata*? Schürmann (1844) referred to two Pangkala marsupials:—marnta (p. 28) and punta (p. 61), an animal similar to marnta; these two terms probably belong to members of the Phascogalinae. Punta has been applied to mice.

MONOTREMATA

Tachyglossus aculeatus Shaw—Echidna or native porcupine. Finlayson (1936, 161) reported it as very rare in the lower Diamantina region, where its Wonkanguru names were inappa and innuwallinga. Gillen (1896, 180) gave its Aranda name as inarlinga, while the ancestral echidna (p. 184) was Inapwerla; Spencer and Gillen (1896, 650) using the terms inarlinga and inapwertwa respectively. Roth (1897, 36) stated that the Pittapitta applied the terms munguni-pari and narapari to the animal.

Ornithorhynchus anatinus—Hale and Tindale (1925, 56) referred to Basedow's opinion (1925, 304, pl. 41) that a design scratched on a rock by natives of the Flinders Ranges was strongly suggestive of a platypus, that author in 1914 considering that there was reason for supposing that the animal had been observed in Dalhousie Springs. Though on very rare occasions the species has been seen in the lower Murray, it has not been reported further north in this State and the absence of suitable streams there would seem to render its occurrence quite unlikely. The native rock engraving is suggestive of an echidna or possibly a tortoise.

AVES

General terms—Bird: pai-a is the common term throughout the region; piya D, Gason 1879, 302; pi-a Pp, Roth 1897, 31, 37, pi = that which travels or lives in air; paia, Howitt 1904, 788; paija D, Fry 1937, 203; irta Pa, Schürmann 1844, 8; yuta Wp, Hale and Tindale 1925, 57; talli Pa, Schürmann 1844, 62, young bird. Feathers: yarri Pa, Schürmann 1844, 81 (wing or feather); poornoo, konaro Pp, Roth 1897, 31, 35; kurl-ya Ka, Wells 1894, 520.

Egg, names supplied by Curr's correspondents (1886): papoo A, Todd; pappu A, Jacobs; parpoo N, Cornish; hapoo A, Warren and Hogarth; pampu W?, Jacobs; pompo Kw, Anon; pumpo Ky, Machattie; pampo Ya, Salmon; pompoo Ya, Cornish; benibo Pp, Eglinton. Pepe Wp, Wills; peipe K, Kingsmill; pie-pie Wp, Gason; peepee Pa, Beddome — Ja, Green; peppi Pa, Sawers. Kaapee N, Paull; capee Yu, Howitt; kuppy Te, Foott; kuppe Wk, Myles; kuppie D, Gason; kuppee Wp, Phillipson; kupinya Te, Sullivan and Eglinton; kuppo B, Sullivan; kabbi D, Jacobs; kupi Wa, Crozier; karki Ma, Morton; kappi Wa, Dewhurst. Kookurry Ku, Heagney; coocurry Kg, Heagney; kokarri Bi, Curr. Mooka Nu, Valentine. Pirty Ma, Reid; berty Wi, Dix.

Other terms—Nest: wola (piyawola) D, Gason 1879, 301; pudni Pa, Schürmann 1844, 59. Thaubulyoo D, Gason 1879, 303, rotten egg. Wardnu Pa, egg-shell, Schürmann 1844, 69; murka Pa, yolk (p. 36); peli Pa, egg-white (p. 55). Paia-moku D, Howitt 1904, 788, applied to the Umbelliferous plant, *Didiscus glaucifolius*; payamoku D, Stirling and Waite 1919, toa 68, bird bone used for piercing nasal septum. Wima paija D, Fry 1937, 203, dream bird, i.e., one associated with sacred ceremonies (wima). Malberinye Pa, Schürmann 1844, 25, phallocrypt made of feathers (or of tassels of opossum fur). Aunnie D, Gason 1879, 296, flock of birds (or mob of cattle). Kullari Pa, a fabulous bird said to peck people's heads (Schürmann 1844, 20); it was apparently different from the fiend, Marralye, which took the form of a bird and attacked, and at times killed, natives (p. 28). Gason (1879, 278) referred to a Dieri ceremony to make wild fowl lay eggs; such birds occur in great abundance after the floods come down from Queensland highlands and fill the river-beds, lakes and watercourses. Reid (1886, 179) reported that the Mulya-ngapa natives believed that after death they became birds. The use of feathers by the Dieri for stuffing skin bags to convert them into percussion instruments for use during dancing (Fry 1937, 270) has already been noted. Many of the native names for birds are onomatopoeic.

CASUARIIFORMES

Dromacus novaehollandiae Lath. Emu—Woroocathie D, Gason (1879, 286). Curr's contributors (1886) reported the following terms: warreewatte A, Warren; warrewotti A, Warren and Hogarth; warrawatty Yu, Howitt; warrachie Pa, Ja, Green; warraitya Pa, Le Souef and Holden; warretchie Wp, Gason; warrachie Wp, Wills; worrachie K, Kingsmill; warrache Wp, Phillipson; warradi Pa, Sawers; warrawudgi Kw, Anon; warrawidgee Ya, Salmon. Warrukotti A, Jacobs; woroocathie D, Gason; worrukatti D, Jacobs; warroogatty N, Paull;

workatji W?, Jacobs; waraguita N. Cornish; waroogatee Wp, Phillipson; war-gutchi Ky, Machattie. Koolpurri Te, Foott; koolberri Wk, Myles; koolbaree, Te, Sullivan and Eglinton; koolbarree B, Sullivan [= kool-par-i Roth 1897]; goolburra Pp, Eglinton; coolperry Kg, Heagney; koolperry Ku, Heagney. Kathie Ma, Reid; kaltee Wi, Dix; koleti Ma, Morton; karde Nj, Le Brun; karrie Nu, Valentine; karlye Pa, Beddome; kurithe Wa, Crozier; kurlitchi Wa, Dewhurst. Quarra Ya, Cornish. Erlea A, Todd. Kubana Bi, Curr.

Names reported by Howitt as totemic were: warugati D (1891, 38); waranati An (39), and kulbara Kd (39); warugatti (1901, 293). In his later work (1904) he reported the following as totemic: warogati D (p. 91), W (92), A (94); warukati A (783); warkitji N (94); kewora Ya (95); pulkara Wo (95); kulbara Kd (97), and kulthi Wi, Mi (98). Many of these terms will be recognised as being essentially the same as others quoted above. Kewora is quorra; kulthi is kaltee or kathie (*i.e.*, skin); kulbara is the same as koolpurri and its variants, as well as koolpari of the Pitapitta referred to below. Erlea, mentioned by Todd (1886) for the Arabana, is the same as erlia and ilia reported for the Aranda by Spencer and Gillen (1899, 648) and Strehlow (1908, 64) respectively. It is of interest to note that Howitt (1904, 97) recorded that warogatchi was applied to the crow by the Kurnandaburi (= Karendala); this is probably an error for wakaratchi (wakaretji) the term applied to the crow by other tribes in that locality. Karlye suggests kalala, the Loritja term for the emu, the latter term being used also at Ooldea by the Andigerri; while Helms recorded kaleya from the Everard Ranges (1896, 317).

Other records are warugati D. Howitt 1885, 6 — Gatti 1930, 107; warraitya Pa, Schürmann 1844, 69; worrugatti A, Helms 1896, 316; warugatti Yu, Howitt 1901, 293; warra-katchie Ka, Wells 1894, 520; waridji Nj, warukati D, warichi Wp, Berndt and Vogelsang 1941, 6; warichi Wp, totem, Hale and Tindale 1925, 46, 57; warukatti D, M. Howitt 1902, 407; warukati D, Eylmann 1908, 167 — Fry 1937, 188, 197; warroo getti W, Horne and Aiston 1924, 135; warraguti A, Spencer and Gillen 1899, 60; waragutie A, Spencer and Gillen 1899, 114; wakaje, Duncan-Kemp 1933, 235; warukatji, Stirling and Waite, toas 1, 3, 8, 82, 123, 143, 157, 236, 238, 242, 246, 296; warrukatji N, W, Johnston and Cleland 1943, 154. Waru-kati = grey skin (Howitt 1904, 783)—and hence the emu is known as the grey bird. Roth (1897) reported several names used by the Pittapitta: wakaje, kool-par-i (= nodding head, *i.e.*, the bird with the nodding head), multara maro (*i.e.*, the possessor of the multara, an emu-feather ornament), and pooroo-ro (= the feathered one; its feathers, poorono, are used extensively for decoration). Pappiti Pa, male emu; pittit Pa, emu eggs, Schürmann 1844 MS.; kalbanna, emu feathers (p. 10). The eating of emu eggs by young men was prohibited by the Kunggerri and Kungadutji tribes (Heagney 1886, 375) and by the Karanguru, those disobeying were liable to become grey-headed (Wells 1894, 517). Wonapani D, is the polished sharpened "radius" of an emu and was used for piercing the nasal septum (Sanger 1883); Gason 1879, 303, called it wonabunye. Sharpened emu bones were pushed through the skin of the arm, thigh, and scrotum during ceremonies for increasing wild fowl (Gason 1879, 278); and for rain-making (Horne and Aiston 1924, 44, 115, fig. 80). It was also forced down the urethra of a youth immediately prior to being subincised with a small stone knife (Horne and Aiston, p. 161). Emu sinews were used for attaching the barb to the light spear, kutchie (Horne and Aiston, p. 79), and for tying feathers of hawks, crows and eagles into bunches (kootcha) for decorative purposes (Gason 1879, 289). Emu feathers were used extensively in connection with ceremonial decorations and dancing. Those bound into a bundle and stuck into the headband were called kukamandra D, Fry 1937, 201; multara W, Horne and Aiston 1924, 118; multarra Ka, Wells 1894, 520; maltara Stirling and Waite 1919, toa 8;

maltarra Pa, Schürmann 1844, 26, attached to the waist belt, the ornament worn in the hair being termed woppa (p. 75); multara Pp, Roth 1897, 36, a roll of such feathers being worn over portion of the body wherever there is pain, also called min-ta-ra and min-ma (p. 163); tilyari Pp, bunch worn over the buttocks, Roth 1897, 38; wurtawurta or wurdawurda D, worn in the headband or in the waist-band (yinka or dampera), Gason 1879, 289 — Horne and Aiston 1924, 47; aroo D, Gason 1879, 289, large feathers from the tail, used as a fan. Horne and Aiston published illustrations showing feather ornaments (fig. 34, 35, 82). Howitt (1904, 330, 662, 663, fig. 15) recorded the following names for emu feather decorations: kabuluru, kakabilla, maltara and ngaru. Gason (1879, 272) and Howitt (1891, 85) mentioned the use of emu feathers in the Dieri mindari ceremony; and the latter author (p. 679) referred to the carrying of a very striking token (fig. 41) of emu feathers by messengers calling people together for the wilyaru, as well as the mindari, ceremonies. Emu feathers were sometimes woven into the hair-string forming the waistbelt (Schürmann 1846; 1879, 211-212, 233; Wilhelmi 1861, 167-168). Emu feathers were stuffed into a net (munta W) worn on the head; and they were also utilised to make kurdaitja shoes and the sheath in which the stone knife (yutchawunta) was carried (Horne and Aiston 1924, 138).

Basedow (1925) mentioned that the emu (dangorra) figured amongst the aboriginal constellations (p. 315, 332-333, 349), but did not indicate the name or locality of the tribe concerned.

Australites were termed "emu eyes": oooga, Duncan-Kemp 1933, 72, carried as charms by old men of the Diamantina tribes, and credited with powers of night vision; warukati milki-tandra D, emu eyeball, regarded as representing a mura (mindiri), Fry 1937, 201; warroo getti milki W, Horne and Aiston 1924, 60, 135. According to the last-named authors these small, characteristically shaped, glassy meteorites were supposed to be eyes lost by emus while walking about looking for food. These articles were stored in a netbag containing abundance of emu feathers (fig. 44). When an emu hunt was about to be undertaken, these "eyes" were taken out by the "Kurdaitcha" men, while the remaining hunters were armed with boomerangs (kirra). The former threw "eyes" at the emus, and this was believed to cause the birds to become blind and thus easily driven into water, when the hunters would close in and kill them.

SPHENISCIFORMES

Eudyptula minor Forst. Penguin—To-lai Pa, Schürmann 1844, 63.

GALLIFORMES

Leipoa ocellata G. Pheasant, malle fowl—Kalbanya Pa, Schürmann 1844, 10, pheasant; budni Nj, Berndt and Vogelsang 1941, 7.

Quail—Mulliepirrapoonga D, Gason 1879, 286; purrulla Pa, Schürmann 1844, 61. The species was probably *Coturnix pectoralis* G.

TURNICIFORMES

Button Bird—Moko irta Pa, Schürmann 1844, 33; moko = knot or button or any rounded hard substance, irta = bird. A small species. Perhaps the button quail or little quail, *Turnix velox* G, was referred to, but the bald coot, *Porphyrio melanotus*, seems more likely.

COLUMBIFORMES

Geopelia placida G. Dove—Kurukuku Wp, Hale and Tindale 1925, 57. We obtained the term kurukuku N, W, for this and the succeeding species at Pandi—obviously an onomatopoeic name.

Geopelia cuneata Lath. Diamond Dove—White 1917 recorded *G. cuneata* to be the widely distributed species in the Eyrcean region. Koorookookoo D, Gason

1879, 286; kurukuku D, Fry 1937, 189. Teulon 1886, 212, recorded it as korwoothoo of the Barkindji tribe. Waparu D, Gatti 1930, recorded as a dove, is the flock pigeon.

Histriophaps histrionica G. Flock pigeon—Woparoo D, Gason 1879, 286; wapparoo Ka (pigeon), Wells 1894, 521. Duncan-Kemp (1933, 154) referred to mok-wa-ri, pigeon traps in the form of straight narrow drives, 20 to 30 feet long, through vegetation along lagoons and waterways. Roth (1897, 98; 1901) gave additional information regarding the mokwari, the pigeon concerned being recorded as *Histriophagus* (error for *Histriophaps*) *histrionica* whose name amongst the Pittapitta and Karanya tribes was pa-rou-li (p. 50).

Ocyphaps lophotes Tenm. Top-knot, crested pigeon—Murambara Wp, Hale and Tindale 1925, 57. Mulapara D, T. Vogelsang.

Phaps chalcoptera Lath. Bronzewing—Murnpie D, Gason 1879, 286; murnpie D, Gatti 1930; marnpi Pa, pigeon, Schürmann 1844, 28; murnbi Pa, pigeon, Sawers 1886, 132. Wyatt (1879, 172) reported mernpe as a bronzewing pigeon, Adelaide tribe.

Pigeon—Moodlubra D, Gason 1879, 286 [error for murlapara]; murlapara A, Stirling and Waite 1919, 147, toa 259; mulapara D, Fry 1937, 182. These terms all apply to *Ocyphaps lophotes*.

Strehlow (1908, 64) mentioned kokoku and manpi as names of two species of doves amongst the Loritja peoples; these terms are obviously similar to those for the two species of dove and for the bronzewing respectively amongst the Eyrean tribes. The name of the township Murnpeowie suggests murnpi-owie, i.e., bronzewing pigeon-water. The name of Stirling and Waite's marnpi bird (1919, 127, toa 99, D) suggests mernpie or manpi, but the figure on the toa represents a crested bird such as a top-knot pigeon.

Howitt (1904, 483) published a photograph of Pigeon Rocks, which are supposed by the Arabana tribe to be full of pigeon spirit individuals (mai-aurlu) left behind by the ancestor of the pigeon totem group. The pigeon concerned is probably the rock pigeon, *Lophophaps plumifera* G. (syn. *leucogaster* G.), whose Aranda name is inturrita (Spencer and Gillen 1899, 650).

RALLIFORMES

Waterhen—Gason (1879, 287) published Dieri names for three species which we have identified. Spencer and Gillen 1899, 60, 114, recorded kutnichilli as an Arabana totem. Wunadjildi Nj, Berndt and Vogelsang 1941, 10, waterhen. Both terms perhaps belong to *Tribonyx ventralis*.

Gallinula tenebrosa G.—Wattawirrie D, Gason 1879, 287, a species of waterhen.

Tribonyx ventralis G.—Kilkie D, Gason 1879, 287, waterhen.

Fulica atra L.—Muroomuroo D, Gason 1879, 287, black waterhen (muru = black). T. Vogelsang informed me that the species was commonly termed the black diver because of its appearance and habit. Howitt (1904, 97) mentioned muro-muro Kd as the large black cormorant [*Phalacrocorax carbo*]. Gason (1879, 287) reported doolpadoolparoo D, as a black diver, but this term belongs to a grebe.

Porphyrio melanotus Tenm.—Moko irta Pa, Schürmann 1844, 33, "button bird," may be the bald coot whose head is provided with a prominent-coloured horny plate (moko = button or hard substance, irta = bird).

Porzana fluminea G. Spotted crane—Tampatampana D, T. Vogelsang (tampana refers to the jerky progressive movement commonly adopted by rails). Thanpathanpa D, Gason 1879-287, slate-coloured snipe.

PODICIPIFORMES

In addition to references to divers, mentioned above, there are others which may belong to grebes. Weoopa Pa, Green 1886, 126; nimmilye Pa, Schürmann 1844, 39, waterbird (diver, MS). Woochoo-bukanni Ka, Wells 1894, 520, diver, is a cormorant.

Podiceps poliocephalus Jard. Selby—Thookabie D, Gason 1879, 287, diver. T. Vogelsang informed me that the correct name is tooka-tookabi.

Podiceps ruficollis novae-hollandiae Steph.—Doolpadoolparoo D, Gason 1879, 287, black diver. Identified by T. Vogelsang.

PROCELLARIIFORMES

Mutton bird, presumably *Puffinus tenuirostris* Temm. — Mannallara Pa, Schürmann 1844, 26.

PELECANIFORMES

Pelecanus conspicillatus Temm. Pelican—From Curr's work (1886) the following names have been collected: Tampanpara A, Jacobs; tumpunara N, Cornish; toompingaroo N, Paull; thampara K, Kingsmill; tampangra Yu, Howitt; thaumpara D, Gason; tampangara D, Jacobs; thampano Ma, Reid; kaubungarra Wk, Myles. Worandoo A, Warren and Hogarth; warrunto A, Todd; warrantjuma W?, Jacobs. Turta Kw, Anon; thirta Kg, Ku, Heagney; tarta Bi, Curr. Widli Pa, Le Souef and Holden; weedley Pa, Green. Mammou Nu, Valentine. Dukkamirri Ya, Cornish; dookamerri Ya, Salmon. Karbonera Ma, Morton. Malimurro Pp, Eglinton; murlinarroo Ky, Machattie. Kowbernuggera B, Sullivan.

Other references are: widli Pa, Schürmann 1844, 71; thaumpara D, Gason 1879, 287; tum-pungarra Ka, Wells 1894, 521, its pouch = waroora; uranta A, totem, Spencer and Gillen 1899, 60; urantha A, Spencer and Gillen 1899, 114; tampangara T, D, Stirling and Waite 1919, 120, 125, toas 49, 80; milli-murro DK, Duncan-Kemp 1933, 233. A pelican bone was worn through the nasal septum as an ornament, Horne and Aiston 1924, 41, fig. 32; Sanger 1883 (= padlamookoo, D).

Cormorants—White (1919) recorded seeing *Phalacrocorax carbo* (*novae-hollandiae*) and *P. melanoleucus* on Cooper's Creek. We observed the former at Pandi. Boorkoopiya D, Gason 1879, 287, long-beaked cormorant (boorka = wade, piya, *i.e.*, pai-a = bird); cormorants and darters are not wading birds; the species is probably the blue heron, *Notophox novae-hollandiae*, though the stilt, *Himantopus leucocephalus*, is a remote possibility. Ita Pa, Schürmann 1844, 8, shag; since he recorded the black shag under a different term, it is possible that ita belongs to the coastal pied cormorant *P. fuscescens* (*leucogaster*).

Phalacrocorax carbo L.—Malura D (T. Vogelsang). Howitt (1904) reported two names for the cormorant totem: malura D (p. 91, 782, 788), Ya (95); and tantani W (92, 788), A (93), An (93), N (94), and Wo (95). Other references are: malura D, Eylmann 1908, 167; muloora D, Gason 1879, 287. Yaldu Pa, Schürmann 1844, 78, black shag, belongs to *P. carbo*, which is the common black cormorant of the South Australian coasts. The same term, yal-tow, was reported by Fraser (1839, 114; 1840, 62) as applied by the Adelaide tribe to *P. carbooides* (= *P. carbo*). Howitt (1904, 97) recorded taragoro and mitromuro as terms for the small and large species of black cormorants amongst the Kurnandaburi [= Karendala]; if correctly named, they must have been *P. sulcirostris* Brandt and *P. carbo*, but it should be pointed out that the black diver, muru-muru, of the Dieri is not a cormorant but a waterhen, *Fulica atra*. Horne and Aiston (1924, 123) mentioned tantani as a black cormorant. Howitt (1891) recorded malura D (p. 38) and tantani An (39) as totems. Strehlow (1908, 64) reported tantana of

the Aranda to be a black heron—probably an error for cormorant, there being no Australian black heron. Green (1886) recorded tanthunnie Pa, as a black duck, no doubt the result of having confused the latter with the cormorant.

Phalacrocorax melanoleucus Vieill.—Wutju bakanni D, T. Vogelsang; woochoo-bukanni Ka, Wells 1894, 517, 520, diver, is the same species.

LARIFORMES

Larus novae-hollandiae Steph. Silver gull—Kalliworra Pa, yao Pa, Schürmann, 1844, 11, 79; latter name (onomatopœic) also given by the Adelaide tribe. Kirrpiyirka D, Gason 1879, 287. The latter name is almost the same as tirrygirryka reported by Teulon 1886, 213, as the Barkindji name for a wagtail like *Rhipidura motacilla*. The species would be *R. motacilloides* = *R. leucophrys*.

Skua—Schürmann (l.c.) mentioned two Pangkala names for the "bozen bird," kangai (p. 3) and parudabirru (p. 53). The true boatswain birds (*Phaeton*) do not occur in South Australia, but the term is sometimes applied to the skuas, of which two species, Richardson's or Arctic skua (*Stercorarius parasiticus*) and the southern skua (*Catharacta antarctica*) occur in our waters. Probably Schürmann's names apply to these two species.

Geochelidon nilotica Gmel. Gull-billed tern—Muti-muti D, Fry 1937, 195 (tern). This is the chief inland species of tern.

CITRADRITIFORMES

Snipe—Gason (1879, 287) mentioned Dieri names for four species, all listed as waders: chooiechooie, "snipe" [probably the greenshank, *Tringa nebularia*] dickadickulyerra and mootoomootoo, "species of snipe"; and thanpathanpa, "slate-coloured snipe." The last-named is a Ralliform bird, *Porzana fluminea*.

Dotterel—Horne and Aiston (1924) have confused two Wonkanguru names, one for a dotterel and one for a swallow. Wee-cr wee-erlerra is called swallow (p. 119) and dotterel (p. 175); digidigelera (which almost certainly belongs to the swallow) is given as the name of the former on page 175, and of the latter on page 119. The relation of these birds to the rain-making ceremony is described. The only dotterel observed during our visit to the Diamantina was *Charadrius melanops*.

Peltohyas australis Gould. Dotterel—Palpara D, T. Vogelsang; balpara Stirling and Waite 1919, toa 36, unidentified. Palpara W, Horne and Aiston 1924, 141, said to be a hawk, is the same name, but we received patara at Paudi as the name of a kite. *P. australis* is the dotterel of the gibber plains and is called locally the gibber bird, according to Morgan 1930, 267.

Burhinus maguirostris Lath. Curlew, stone plover—Willaroo D, Gason 1879, 286; wee-lo and willaroo in Leach's "An Australian Bird Book," 1911, 51; willoo W, Horne and Aiston 1924, 9, 159; weeloo Pa, Green 1886, 126; wiloo Pa, Sowers 1886, 132; welu Pa, Schürmann 1844, 71; 1846; 1879, 241 — Wilhelmi 1862, 34; wudlaru Nj, and willuru D, Berndt and Vogelsang, 1941, 5. Howitt (1904) mentioned as names of the curlew totem: willangu Yu (p. 92), wilyuru N (p. 94), wilangu Ya (p. 95), and wilyaru (p. 783). Stirling and Waite's wuluru D, toa 292, suggests willuru, but the figure on the toa is more like the head of a bustard.

A legend with which was associated the willoo (Horne and Aiston 1924, 159) has been referred to under *Thalacomyx* (telca). Schürmann (1946; 1879, 241) published a Pangkala legend: In ancestral times Welu was a fierce warrior and an immoderate lover whose amours were foiled by the neighbouring Nauo tribe whom he determined to exterminate. He speared all the men except two, Karantanya and Yangkunu, who fled for shelter into the top of a tree. Welu climbed after them to kill them, but the young men broke the branch which was supporting

their enemy. Welu fell to the ground, where a native dog killed him. Welu became a bird, the curlew, while the names of the two young men were perpetuated in those of two species of hawks. This legend was re-published by Wilhelmi (1861 184; 1862, 34), but he omitted mention of the hawks and stated that the two young men became changed into two lizards, Ibirri and Waka, which are mentioned later in the present report.

Eupodotis australis Gray. Bustard, wild turkey—Curr's correspondents (1886) supplied many names: kallatoora N, Paull; kulathoora D, Gason; kurlator Ma, Morton; kurlathura Wa, Crozier; kaldura Wa, Dewhurst; kurreuro Ky, Machattie. Wala Wp, Gason; walla Pa, Beddome — Pa, Le Souef and Holden-Nu, Valentine; wirla Pa, Green. Worka Ku, Heagney; wurkum Kw, Anon. Thurlchege Ma, Reid. Goonging Kg, Heagney.

Other references are: walla Pa, Schürmann 1844, 67; kulathoora D, Gason 1879, 286; kalathurra A, totem, Spencer and Gillen 1899, 60; kalathura A, totem, Spencer and Gillen 1899, 114; kalatoora, kallatoora W, N, Johnston and Cleland, 1943, 156; wal-la Wp. Hale and Tindale 1925, 57; wala Nj, kala-tura D, wal-la Wp, Berndt and Vogelsang 1941, 5.

Johnston and Cleland (1943, 156) mentioned that in the lower Diamantina region the plant, *Goodenia cycloptera*, was termed kalla-toora-milkie (= turkey eye) by the Ngameni and Wonkanguru tribes, because of the appearance of the flower.

Lobivyr novae-hollandiae Steph., syn. *Lobivanellus lobatus* Lath., spurwing plover—Darudaru D (T. Vogelsang); Fry 1937, 195, plover; Stirling and Waite 1919, toa 269, unidentified.

Plover—Pildari kintye Pa, pilderilderi Pa, Schürmann 1844, 56. These terms probably refer to two related species, one being *Lobivyr novae-hollandiae* and the other perhaps *Zonifer tricolor*. Kantya = porcupine grass (*Triodia*) or spear; if this term is the same as kintye, the latter may refer to the prominent spur present on the wing of the spurwing and so permit identification of Schürmann's name.

Haematopus spp. Redbill—This term is often applied to the oyster catchers, *H. unicolor* Forst. and *H. ostralegus* L., both of which occur on Eyre's Peninsula. Bithu Pa, [onomatopoeic for the oyster catchers], kudnannaga Pa, Schürmann 1844, 3, 19. Bithu was said to accompany the souls of the departed Pangkala on their flight to the island (p. 3), mungaltanna, in Spencer's Gulf (p. 35), where such souls (wilya) would become changed into white men (p. 73). Further reference was also made by Schürmann (1846; 1879, 235-236; Wilhelmi 1861, 189) to this bird, which was said to shriek at night.

Himantopus leucocephalus G.—Muta-muta D, T. Vogelsang. Mootoomootoo D, Gason 1879, 287, a species of snipe, refers to the stilt.

MEGALORNITHIFORMES

Megalornis rubicundus Perry (syn. *Antigone australasiana* G.). Brolga, native companion—Curr's correspondents (1886) supplied the following names: Puralka A, Jacobs; puralku D, W?, Jacobs; pooralkoo N, Cornish; pooralko Ma, Morton — Ya, Cornish; pooralco N, Paull; booralkoo D, Gason; puralko Wa, Dewhurst; bouralko Yu, Howitt; brolgar Ky, Machattie. Wooroo A, Warren and Hogarth. Koodri Ya, Salmon. Mulumpari Wa, Crozier. Mulvani Bi, Crozier. Koorltho Ma, Reid. Koonthurra B, Sullivan — Te, Sullivan and Eglinton; goonthurra Te, Foott; goontherra Ku, Heagney; goontheri Kg, Heagney; golathurra Pp, Eglinton; kuntharata Kw, Anon. Wooroo is a heron and the term was probably attributed wrongly by Warren and Hogarth to the broлга.

Other references: booralkoo D, Gason 1879, 287; buralko D, Howitt 1891, 38; poo-ral-koo (crane) Ka, Wells 1894, 520; kuntara Kd, totem, Howitt 1891,

39. Amongst the tribes of the Georgina and Diamantina watersheds Curr's lists indicate as names: booralgoo, borolga, boralga, bralga, baralgar, booralga and brolgar—hence the term broлга given by the white population. Mulumpiri Ya, Stirling and Waite 1919, toa 140; the term is the same as that recorded above by Crozier as the name for the broлга.

ARDEIFORMES

Nycticorax caledonicus Gmel. Nankeen heron, night heron—Ooroo D, Gason 1879, 287. Stirling and Waite's (1919) wuru bird D, toa 179, belongs to this species. Mr. T. Vogelsang informed me that wuru was a night bird. Helms 1896, 316, recorded wurru A, as the blue heron.

Egretta alba L. White heron—Moolpa D, Gason 1879, 287. Stirling and Waite's (1919) mulpu bird D, toa 160, belongs probably to the same species.

Notophoxr novae-hollandiae Lath. Blue heron—Kogunya Ka, Howitt 1891, 39, blue crane; wurru A, Helms 1896, 316. Wadna Pa, Schürmann 1844, 64, crane, may belong to this species; wadna means a throwing stick or boomerang, and the native name is probably related to the dark form and to the attitude of the bird whilst watching for its prey.

Notophoxr pacifica Lath. White-necked heron—Culiemulyandurie D, black and white crane, Gason 1879, 287.

"Crane, black with white on wings." Howitt mentioned as a totem bird malparu Yu (p. 92), N (94), Ya (95); malburu K, (96); malbaru (783). The information does not permit of definite identification but the bird is almost certainly *Notophoxr pacifica*, though the jabiru or even the stilt, *Himantopus leucocephalus* G., is a possibility.

"Crane"—Murra-mil-le DK. Also a constellation which, together with kibulyo (= duck) guards "the entrance to the ghostly wild-fowl swamps" where the spirit-people dwell. Duncan-Kemp 1933, 123.

ANSERIFORMES

Duck—General term, Pi-ya Ka, Wells 1894, 520; tharalkoo D, Gason 1879, 303 (same name given for the teal); mari Nj, tau-urula D, Berndt and Vogelsang 1941, 5. Pai-a is the general term used for a bird in the region. Taurula is the pink-eared spoonbill duck.

Anas superciliosa Gmel. Black duck—Curr's correspondents (1886) reported the following terms: pia N, Paull; peya Bi, Curr. Murrara Wp, Wills; murrarra Pa, Le Souef and Holden; maru-maru D, Jacobs; marara Wp, Gason; maurra Pa, Sawers; nurry Nj, Le Brun; nowirra Te, Foott. Willunga Te, Sullivan and Eglinton — B, Sullivan. Mungowrie Ma, Morton; mingenarra Kw, Anon; mingalla K, Kingsmill. Yella-moora Kg, Ku, Heagney. Durmmi A, W?, Jacobs. Oodla-oodla A, Todd. Mulchawarroo A, Warren and Hogarth. Dickeri Ya, Salmon. Tarralkoo Yu, Howitt. Chippala D, Gason. Urle Wk, Myles. Barndoo Wp, Phillipson. Manou Nu, Valentine. Ngalta Ma, Reid. Kultappi Wa, Dewhurst. Tanthunnie Pa, Green. Pepulu Pp, Eglinton. Kurligoolpar Ky, Machattie. Ngoorri Ja, Green. Pundrewunga Wa, Crozier. Tanthunnie of Green is probably attributed to the black duck in error for the black cormorant, tantani. Marrara Pa, wild duck, Schürmann 1844, 29, is probably *Anas superciliosa*, the commonest Australian species.

Chenonetta jubata Lath. Wood duck—Curr's correspondents (1886) mentioned the following names: barndo Wp, Wills; burndoo Ja, Green. Goonary Kg, Heagney; goonery Ku, Heagney; koonallee Wi, Dix; kunarli Ma, Morton; koomaly Ma, Reid; koonare B, Sullivan; goornabrinna Ya, Salmon; koodnapina D, Gason; kooraburra Te, Foott. Bitta-bitta Wk, Myles. Ngowera Te, Sullivan and

Eglinton; neirey Nu, Valentine; kowwar Ky, Machattie; moondon-ngarie Pa, Green. Chiberli Kw, Anon. Yarkalto A, Todd. Yangacaroota-poone K, Kingsmill. Bompeparoo Pp, Eglinton.

Some of these terms (or obvious variants of them) are similar to those recorded for the black duck—tarralko (yarkalto), chippala, murry, ngowera. Kala Pa, Schürmann 1844 (MS). White (1917, 448) reported the occurrence of *C. jubata* on the Cooper.

Dendrocygna cytoni Eyton. Whistling duck—Tjipala D. Chipala D, Gason 1879, 287; this author gave the same term (1886, 106) as the Dieri name for the black duck. The Pittapitta called it kibulyo (Roth 1897, 34). Duncan-Kemp 1933 123, mentioned kibulyo, duck, as a constellation. Morgan 1930, 268, identified the species on the lower Diamantina as *D. cytoni*.

Casarca tadornoides Jard. and Selb. Mountain duck—Kockadooroo D, Gason 1897, 287.

Querquedula gibberifrons Müll. Teal—Tharalkoo D, Gason 1879, 287; taralku D, Fry 1937, 276, duck; marrar Pa, Green 1886, 126; willungari Kd, Howitt 1904, 97. White (1917, 448) reported that the species bred along the Cooper.

Malacorhynchus membranaceus Lath. Pink-eared spoon-bill duck—Tau-urula D, Berndt and Vogelsang 1941, 5, belongs to this species. Manataulawuluni D, Stirling and Waite 1919, 151, toa 291 (ni = to or to the place of; wulu = two; mana = mouth; taula = taurla = pink-eared duck; hence the word means to the place of (i.e., resembling) two duck bills). Thowla D, Gason 1879, 287.

Nyroca australis Eyton. Brown duck with red beak—Koodnapina D, Gason 1879, 287 (koodna = excrement, pina = large, great). The same term was given by Gason (1886, 106) for the wood duck (Dieri).

Unidentified ducks—Inyarrie A, totem, Spencer and Gillen 1899, 60, 114; wungara A, totem, Spencer and Gillen 1899, 657 [wonkara of the Aranda and Loritja, Strehlow 1907, 64]; kultapa Wi, totem, Uleburri Mi, totem Howitt 1904, 98. In a neighbouring tribe (Barkinji) on the Darling, the last-named two terms appear to be replaced in the list of totem animals by kultappa, the whistling duck (Howitt 1904, 99), hence it is possible that the three names all refer to the same species; but it should be noted that Dewhurst reported kultappi as the black duck, and Teulon 1886, 213, mentioned kooltapa as the teal, Barkindji tribe.

Chenopsis atrata Lath. Black swan—The following names are listed from Curr's correspondents (1886): kooti A, Warren and Hogarth — Pa, Sawers — Pa, Le Souef and Holden; kute A, Todd; kootec N, Paull; koodie N, Cornish; kootie D, Gason; kurti D, A. Jacobs; koodri Ya, Cornish; cootee Pa, Ja, Green; cootie K, Kingsmill; oortee Wp, Phillipson; cotee Yu, Howitt; kurti Ky, Machattie; kuteru Ma, Morton; kutteroo Wa, Dewhurst; kootero Ku, Heagney; kootooroo Te, Sullivan and Eglinton — B. Sullivan; kuteruk Wa, Crozier; gootheroo Kg, Heagney. Thurragoora Te, Foott. Youngooli Ma, Reid. Kurrawatti Ya, Salmon.

Other references are: kootie D, Gason 1879, 287; guti A, totem, Spencer and Gillen 1899, 60, 114; korti Pa, Schürmann 1844, 18; kuti A, Helms 1896, 316 — D, Fry 1937, 275. Down of the swan and wild ducks was used for ceremonial decoration in the Dieri mindarie corroboree (Gason 1879, 272; Howitt 1891, 85; 1904, 662).

In a Dieri legend associated with the Pleiades women, a mira woman named Kuti who in her endeavours to obtain a fire-stick fought and killed a Nardui woman, was then turned into a swan and flew away, carrying the fire-stick in her

mouth—hence the name Kuti for the swan, and hence also the red edging to the inside of the beak indicating where the Mura burnt her mouth (Horne and Aiston 1924, 141-142). Another version of this legend was published by Fry 1937, 275.

Biziura lobata Shaw. Musk duck—Ngannalli Pa, Schürmann 1844, 45; a similar term, ngannelli, was mentioned as the name of a waterbird; ku-ra-ru An, Howitt 1891, 39.

Cereopsis novae-hollandiae Lath. Cape Barren goose—Yarrendi Pa, Schürmann 1844, 81, goose.

ACCIPITRIFORMES

Uroaetus aular Lath. Eagle—Curr's contributors (1866) reported the following terms: Karrawurra N, Paull; curawura D, Gason; kurrawerra Ma, Morton; kurrera Wa, Crozier; corrowira Kg, Heagney; corowera Ku, Heagney. Wildoo Wp, Gason — Pa, Green; wildou Nu, Valentine. Cooriadthilla Kg, Heagney. Billara Ma, Reid. Kunthullo Kw, Anon. Wolye Pa, Beddome. Purti Wa, Dewhurst. Perrowalli Pp, Eglington. Yarnu Pa, Le Souef and Holden.

Other references are: Yarnu Pa, Schürmann 1844, 81; curawura D, Gason 1879, 286; wildu Wp, Hale and Tindale 1825, 58 [wilda is applied in the Everard Ranges, Helms 1896, 317]; wildu Nj, Wp, kara-wara D, Berndt and Vogelsang 1941, 5; karawara D, totem, Eylmann 1908, 167 — Gatti 1930, 101; karawora D, Stirling and Waite 1919, 145, toa 234; karawora, Horne and Aiston 1924, 123; karaura D totem, Howitt 1885, 6; 1891, 38; kurara An, totem, Howitt 1891, 39; kooridala DK, Duncan-Kemp 1933, 114; Pp, Roth 1897, 35. Howitt referred (1904) to the following totemic names: karawora D (p. 91), W (92), A (94), N (94); kariwora Ya (95); kuraru An (93); bilyara Wi, Mi (98), and Paruinji (99), becoming billiara amongst the Barkindji of the Darling River.

Young people were forbidden to eat the flesh of the eagle, Kg, Ku (Heagney 1886, 375). Gillen (1896, 180) reported that if girls or young women before their breasts had fully developed, ate flesh of the eagle (iritcha, irritcha, Aranda) and certain other animals, it was believed that the result would be permanent checking of mammary development as well as great leanness; but boys could eat only the legs of the bird and so impart strength and improve the growth of the limbs. (See also Spencer and Gillen 1899, 472).

The eagle figured in aboriginal stellar lore. Kurawurathidna (*i.e.*, eagle track or foot) was applied by the Dieri to a cluster of stars representing the claw of the eagle and seen in the western hemisphere during the winter months (Gason 1879, 295). Basedow (1924, 349) reported that the Southern Cross was called warridajinna (= eagle's claws), but did not mention the name of the tribe. Duncan-Kemp (1933, 122) stated that Mars was Kooridala and that Sirius was a hawk, while another star was Wakerdi, the crow, according to the tribes bordering on the Karanya. Green (1886, 126) reported that the morning star was wildoo kylcela Wp., *i.e.*, the two eagles. Berndt and Vogelsang (1941, 9) stated that the Southern Cross was wildu Nj, and paia-tidna (bird's foot) D. Green (1886, 126) reported that the Cross, according to the neighbouring Pangkala tribe, was Mamburdi, whereas Schürmann (1844, 10) recorded it as Kadnakadna purdli. Amongst the Kaurna, wilto was a star as well as an eagle (Teichelmann and Schürmann 1933, 155).

Eagle feathers are used extensively in the region by men for decorative and ceremonial purposes. They are neatly tied into a bunch, originally with sinews of emu or wallaby or hair string and worn in the front of the head band or at the sides of the waist band. This ornament was termed kootcha by the Dieri (Gason 1879, 289), ilpilla by the Aranda (Spencer and Gillen 1899, 649), and pingkara by the Pittapitta (Roth 1897, 113; Duncan-Kemp 1933, 241). Salmon (1886,

24) used kootya Ya as meaning feathers. The uses of eagle feathers during the rain-making ceremony were mentioned by Horne and Aiston (1924, 111-113) for the Wonkanguru, and by Roth (1897, 168) for Diamantina tribes in Queensland.

Eagle down (as well as that from other birds such as swan and duck) was used for making the distinctive bands and patterns associated with particular ceremonials (Horne and Aiston, p. 42, fig. 32, 33, 34). In connection with the Dieri tooth evulsion ceremony (chirrinchirrie), the teeth after removal were smeared with fat, then wrapped in a bunch of emu feathers and kept for a period of one year before being thrown away, under the belief that, if thrown away earlier, the eagle would cause to grow in their place larger teeth which would turn up on the upper lip and cause death.

Spencer and Gillen (1899, 641) mentioned that in the Arabana wilyaru ceremony the novice was painted to represent an eagle-hawk and the leader carried a long spear, the end of which was decorated with eagle feathers. The numerous diagonal cuts made on the back during the ceremony were indicated by Howitt (1904, 659, fig. 39). Gason (1879, 270) described the wilyaru ceremony, the purpose of which was to increase the supply of snakes and lizards.

Hanbly (1936, 16-17) gave an account of an Arabana legend associated with the wilyaru cuts. Long ago there were two hawks, Wantu and Irritja, each with its brood occupying a tree. Since the former was the stronger he compelled the latter to bring him food, which included blackfellows. Irritja was content to catch and eat wallabies for himself. In sympathy with Irritja was a little hawk, Kutta, who fought Wantu unsuccessfully and then fled to obtain the aid of the bell bird who lit a fire at the base of Wantu's tree, killed Wantu and burned his brood. Out of gratitude for this deliverance from Wantu, the Arabana gave themselves tribal marks in imitation of the feathers on the back of the bell-bird. I cannot find any other reference to this legend. Two of the names, Irritja and Kutta-kutta (eritja and kutakuta in Strehlow 1908, 62-63, respectively) are Aranda terms for the eagle (*U. audax*) and "little night hawk" respectively (Spencer and Gillen 1899, 657). Strehlow called the latter a "night bird." The night hawk or nightjar is *Eurostopodus mystacalis* Temm. (Caprimulgidae), but the former term is often applied also to the owlet-nightjar, *Aegotheles cristata* (Podargidae). Strehlow (1908) recorded Aranda and Loritja names for *Aegotheles* and *Podargus*, hence Kuttakutta probably belongs to *E. mystacalis*. The only name found by us resembling wantu is wantu, the Loritja name for the mallee fowl, *Leipoa ocellata* (Strehlow 1908, 64). The bell-bird of the region is *Orcoica gutturalis*, whose Aranda name is kunbalunbala (Strehlow, l.c., 63).

Eagles (unidentified)—Schürmann 1844 mentioned three Pangkala names (in addition to yarnu, eaglehawk) as those of species of eagles: willu (p. 72), wallulu (72, corrected to willulu in MS) and walburru (66) [= strong]. The first is suggestive of wildu (eaglehawk), and the first and second may refer to *Hieractus morphnoides* and *Haliastur sphenurus*, while the third may be a sea eagle (*Pandion leucocephalus*) or *Gypoictinia melanosterna*.

Hieractus morphnoides G. Little eagle—Kunienundruma D, Gason 1879, 286, largest hawk except eagle. Mura Nj, Berndt and Vogelsang 1941, 5, red eaglehawk, is probably this species.

Haliastur sphenurus Vieill. Whistling eagle—Kookoonga D, Gason 1879, 286, kite; the latter name is due to an error in identification according to T. Vogelsang. Kukunga A, Helms 1896, 316, hawk. The term resembles closely kogunya Kd. Howitt 1891, 39, stated to be the blue crane.

Falco cenchroides—Thirrie-thirrie D, Gason 1879, 286, small speckled hawk.

Astur novae-hollandiae (albus). White hawk—Thoaropathandrumie D, Gason 1879, 286.

Astur novae-hollandiae (*cinereus*). Grey hawk—Milkieworie D, Gason 1879, 286, large grey hawk. In his book (1904) Howitt mentioned miltipalu Ya, a large grey hawk and a totem (p. 95), but referred later (96) to milkiwaru (omitting miltipalu) amongst the totems represented east and north-east of Lake Pando. He also mentioned milketyelparu D, totem (91), milketyelpara (96) and milkiyepara N, totem (94), but without any indication of identification; but these belong to the Kararu moiety, whereas milkiwaru (miltipalu) belongs to the Matteri. Mr. Vogelsang believes milkiwari to be the fish hawk, *Pandion leucocephalus*.

Falco berigora. Brown hawk—Pittiekilkadie D, Gason 1879, 286, speckled hawk. Identified by T. Vogelsang.

Astur fasciatus Vig. Horsf. Sparrow hawk—Kirrkie D, Gason 1879, 286, whistling hawk, very swift. Ngalulka Nj; kirki D, Berndt and Vogelsang 1941, 6, sparrow hawk. Howitt (1891, 39) reported kirki An, as a totem, calling the bird a night hawk, but this identification must have been an error.

Milvus migrans Bodd. Black kite—Patara-patara N, W. This name was obtained at Pandi, where it was termed the morning bird because it called at daylight. Perhaps palpara, Horne and Aiston 1924, 141, refers to the same species.

Hawks—Schürmann (1844) mentioned the Pangkala names of three species of hawks: karkantya (p. 15), perudu (56), and purrelli (MS), the last term being also used for a fish and hence may refer to the fish-hawk, *Pandion leucocephalus*.

In the curlew (wil-lu) legend of the Pangkala, karatantya and yangkunu were reported by Schürmann (1846; 1879, 241) to be the names of two hawks. In his vocabulary of that tribe (1844) he recorded karkantya as a species of hawk (p. 15) and kattaintya as a goatsucker (p. 17), *i.e.*, a nightjar (? *Eurostopodus mystacalis*); and yangkunu as a white cockatoo (p. 79). Teichelmann and Schürmann (1933, 103) recorded karkanya (Kaurna tribe) as a species of hawk whose name was derived from the ominous sound of its voice which, when heard at night, indicated that the souls of one or more aborigines would be taken away, after which those natives would become ill. Fraser (1839, 113; 1840, 61) reported that carcownya was the name applied by the natives of the Adelaide district to *Falco berigora*.

Horne and Aiston (1924, 141) referred to a kind of hawk, Palpara D, associated with the stealing of fire in muramura times. Mrs. Duncan-Kemp (p. 59) mentioned pijerdo as a small brown scavenging hawk; and Roth (1897, 49, 74) referred to it as an ordinary small brown hawk (Pittapitta; Karanya); the species may have been *Falco cenchroides*.

STRIGIFORMES

Tyto alba Scop—Wirchiewurchie D, Gason 1879, 286. White (1917) reported it to be fairly common in the region. Wyatt (1879; 1933, 43), as well as Teichelmann and Schürmann (1840; 1933, 156), recorded that the Adelaide tribe called the white owl winta. Winta Pa, Schürmann 1844, 73, may have been applied to this and/or the next species.

Tyto novae-hollandiae Steph. Grey owl—Windtha D, Gason 1879, 286; winda Nj, winta D, Berndt and Vogelsang 1941, 7, large owl; wooroona DK, Duncan-Kemp 1933, 195, grey owl. The species is *T. novae-hollandiae* according to T. Vogelsang.

Ninox connivens Lath., and perhaps also *N. strenua* G. and *N. boobook* Lath.—Killawoloowolloorka D, Gason 1879, 286, dark brown owl.

Ninox boobook Lath.—Kurko Pa, owl, Schürmann 1844, 73; kurkurruku A, owl, Helms 1896, 316. I believe these terms refer to the boobook whose Loritja name is kurkurr (Strehlow 1908, 63).

Owls—Berndt and Vogelsang 1941, 8, reported *ngangi Nj* and *munju D*, as names of a small owl, but these terms belong to the owlet nightjar, *Aegotheles cristata*. Howitt (1904, 96) mentioned *manpi*, an owl, as a totem in the Eyrean region. Stirling and Waite (1919, 127, toa 99) referred to the *manpi* bird, but the figure on the toa does not represent an owl; I consider that the term is really *murnpi* (*manpi*), a pigeon. Howitt's *manpi* is probably an error for *munyi*, the owlet nightjar.

White (1917) recorded observing *Ninox boobook*, *N. conniicens* and *Tyto alba* in the Dieri region. Feathers of the white owl are used in head decorations in various corroborees (Roth 1897, 118, fig. 283); and in the mindarie or peace ceremony of the Dieri (Gason 1879, 272; Howitt 1904, 662). Horne and Aiston (1924, 45) stated that the head plume of the Wonkanguru mindarie corroboree, when composed only of feathers of the white owl, was called *wumpigena*.

PSITTACIFORMES

White cockatoo—Curr's correspondents (1886) reported the following terms: *kadaroonga A*, Warren and Hogarth; *kudaroonka N*, Cornish; *kudrungoo D*, Gason; *koodrunkoo Ya*, Cornish; *keirdrangn D*, Jacobs; *karrong N*, Paull. *Nerrapinta Ya*, Salmon; *nardnanpn A*, Jacobs. *Thirindhella Te*, Sullivan and Eglinton; *derringerrri Wk*, Myles; *thirindhela B*, Sullivan. *Warrandoo Wp*, Phillipson; *weurando Wp*, Wills; *warranthoo K*, Kingsmill; *korkanda Ma*, Reid. *Younganna Pa*, Green; *yomgona Pa*, Sawyers. *Quodockee Nn*, Valentine. *Woolaki Ja*, Green. *Kuta Ma*, Morton. *Kilumburra Wa*, Dewhurst. *Kugalurinya Wa*, Crozier. *Murramute Kw*, Anon; *mooramerry Kg*, Ku, Heagney; *murmari Bi*, Curr.

Cacatua sanguinea G.—The term white cockatoo is commonly applied to *Cacatua galerita*, the sulphur-crested cockatoo, but in the Eyrean region the common white bird is the corella, *C. sanguinea* (syn. *C. gymnopsis*). Curr's terms probably include the aboriginal names for both, though most of them no doubt refer to the corella. The latter occurs in great flocks along the Diamantina and the following terms belong to it: *warandu Wp*, Hale and Findale 1941, 57; we received the same name in the Northern Flinders Ranges; *kadrangu D*, *gudaki Nj*, Berndt and Vogelsang 1941, 5; *kudrungoo D*, Gason 1879, 286; *kundru-ungoo Ka*, Wells 1894, 521, termed "parrot." Roth (1897, 51) mentioned many names distributed amongst the many tribes further north along the Diamantina and its tributaries; amongst the Pittapitta, Karanya and some others it was *kolloora* or *kollora*, but the Goa people called it *koo-rella*, whence the common European name, *corella*, was derived. Its feathers were used largely for decoration either as a large bunch fastened to the head or as single feathers worked into the headband (Howitt 1904, 330; Horne and Aiston, p. 45).

Black cockatoos—*Irallu* and *yaralta Pa*, Schürmann 1844, 780, without indication as to which term belongs to the red-tailed species, *Calyptorhynchus banksi* Lath., and which to the yellow-tailed *C. funereus* Shaw. These cockatoos do not appear to be eaten by natives (Wells 1894, 517; Duncan-Kemp 1933, 46), but their tail feathers are used for decorative purposes, especially in connection with rain-making ceremonies (Horne and Aiston 1924, 45, 158).

Cacatua leadbeateri Vig.—Schürmann (1844, 79) gave *yangkunu* as the Pangkala name for the "white cockatoo with a red crest." It has already been mentioned in connection with the *wi-lu* legend, Schürmann (1840; 1879, 241) reporting it as a hawk. *Younganna Pa*, Green 1886, and *yomgona Pa*, Sawyers (1886), are similar terms and, no doubt, are intended to apply to the same bird as *yangkunu*. *Kugalurinya Wa*, white cockatoo, Crozier (1886), is obviously the same term as *kalgoolarinya Ba*, which Teulon (1886, 212) reported to be the name of Leadbeater's cockatoo.

Cacatua galerita Lath. White cockatoo, sulphur-crested cockatoo—Some of the terms mentioned under "white cockatoo" may refer to this species, as also may kakki Pa. Schürmann 1844, MS. Teulon 1886, 212, recorded it as kollybooka Ba, and mentioned that the name was also applied to the pointers to the Southern Cross, the latter being called Mirrabooka.

Cacatua roseicapilla Vicill. Galah—Very common in the vicinity of water supplies. Killunkilla D, Gason 1879, 286; killan-killi Ka, Wells 1894, 520. We received the name gillan-gilla, killan-killi Wp, in the Northern Flinders Ranges. It was known as killumba by the Barkindji (Teulon 1886, 212). Perhaps killunburra Wa, Dewhurst 1886 should refer to this species instead of the white cockatoo.

Roth (1897, 50) mentioned many names for the galah amongst north-west-central Queensland tribes, some of them being ga-la- ga-la (Walookera tribe), ge-la-ro (Woonamurra), boombabaro (Karanya), kelun-ji (Pittapitta). Our name galah is obviously derived from ga-la just mentioned.

Leptolophus hollandicus Kerr (syn. *Calopsittacus novae-hollandiae*). Cockatoo parrot, cockatiel—Kooranyawillawilla D, Gason 1879, 286. Kuranya is the term for the rainbow amongst some tribes, and the bird's name is probably related to the colouration of its head. Wurebu Nj, grey parrot, Berndt and Vogelsang 1941, 8, probably belongs to this species.

Melopsittacus undulatus Shaw. Budgerigar—Cathathara D, Gason 1879, 286; wuluri Nj, katatara D, Berndt and Vogelsang 1941, 8 — Fry 1937, 272. We obtained the latter name, N, W, at Pandi. Howitt (1904) mentioned it as a totemic bird; pinyangu Yu (p. 92); katatara N (p. 94), D (782), Yu (796); since tillugaru, unidentified, Ya (p. 95) occupies the same position amongst the Matteri murdus, it probably refers to this bird. Feathers of the shell parrot were sometimes woven into the long girdle (dampera W) made of fur or hair-string and worn by initiated men (Horne and Aiston (p. 47). Kulyeritye Pa, Schürmann 1844, 20, "a small speckled species of parroquet," is probably this species.

Trichoglossus moluccanus Gmel. (*T. novae-hollandiae*). Blue Mountain lorikeet—Tyirrerera Pa, Schürmann 1844, 64; walaja Nj, Berndt and Vogelsang 1841, 8.

Psephotus varius Clark (syn. *P. multicolor*). Mulga parrot—Wardlaru Wp, name obtained by us in the Northern Flinders Ranges. Gupilja Nj, Berndt and Vogelsang 1941, 8.

Psephotus haematonotus G. — Bard-laru Wp, Hale and Tindale 1925, 57; Berndt and Vogelsang 1941, 8; same name as for the preceding species.

Barnardius zonarius Shaw. Port Lincoln parrot—Warta-li Wp, name obtained by us in the Northern Flinders Ranges. Pudlaye Pa, Schürmann 1844, 59, parrot with black head.

Neophema elegans G., or *N. chrysostoma* Kuhl. Grass parrot, green parra-keet—Koltyc Pa, Schürmann 1844, 18; mandelja Nj, Berndt and Vogelsang 1941, 8.

"Scrub parrot," a little larger than the grass parrot and of a paler green, but in other respects similar to that bird." Wayuridna Pa, Schürmann 1844, MS. (? *Neophema chrysogaster* Lath.)

Psephotus haematogaster G., syn. *xanthorrhous*. Bluebonnet—Pulanku D, Berndt and Vogelsang 1941, 8. This is the same name as Gason's poolunka D, (1879, 286). Wimpatimpalunga D, Fry 1937, 270, little bird, coloured red, green and yellow.

Green tree parrot—Guli Nj, Berndt and Vogelsang 1941, 8. Probably juvenile *Platycercus adelaidae* G.

Parrot—Dgeeda Pa, Beddome 1886, 133; the term suggests tjita, a general term for small birds amongst more westerly tribes. Perhaps the same as tyirrera Pa = *Trichoglossus moluccanus*.

CORACIIFORMES

Podagus strigoides Lath.—Munyi D. (T. Vogelsang). Moonyie D, Gason 1879, 286, mopawk; munka-noo Ka, Wells 1894, 521, mopoke.

Aegotheles cristata Shaw. Owllet nightjar, night hawk—Munyi, monyi D (T. Vogelsang); ngangi Nj, munju D, Berndt and Vogelsang 1941, 8, small owl. Same name applied to *Podargus*. The possibility of kutta-kutta, associated with an eagle legend, being the name for this species, has been referred to earlier in this paper. Both *Podargus* and *Aegotheles* were recorded from the Lower Cooper by White (1917). Spencer and Gillen (1899), 651) referred to kuttakutta as a little night hawk.

Dacelo gigas Bodd. Kookooburra—Occurs only in the southern portions of the region with which we are now concerned. Picky Nu, Valentine 1886, 138; kookark Pa, Le Souef and Holden 1886, 8; ngungana of the Adelaide tribe; takkooka, korrookahkahka Ba, Teulon 1886, 208, 213.

Halcyon pyrrhopygius G. Kingfisher—Julu Nj, Berndt and Vogelsang 1941, 7.

Eurostopodus mysticalis Temm. Nightjar—It has been stated in this paper that kutta-kutta of the wilyaru legend of the Arabana people probably belongs to this species to which the term night-hawk is sometimes applied. White (1917) recorded its presence in the Eyrean region.

“Goatsucker” (probably the preceding species)—Kattaintya Pa, Schürmann 1844, 17.

CUCULIFORMES

Cuckoo — Wirrukku Pa, Schürmann 1844, 74. ? *Cuculus inornatus* or *Cacomantis flabelliformis*.

Scythrops novae-hollandiae Lath. Giant cuckoo, flood bird, channelbill, Diamantina bird—Tabajura D, totem, Eylmann 1908, 167; Howitt (1904, 91-96) reported tapaiuru, tapairu and tabaira, as a bat, a totemic animal for several Eyrean tribes. Duncan-Kemp (1933, 267) recorded mukkundrie as the name of this bird amongst Diamantina tribes and gave an account of the legend relating to it, explaining why the bird was doomed to be a nestless harsh-voiced follower of storms and flood-waters. In ancestral times Mukkundrie incited other birds to mutiny, and in punishment its species was banished to become a wanderer till it became extinct. The demon spirit, Marmoo, to spite Nungeena, goddess of birds, suggested to Mukkundrie that it should overcome the difficulty of propagating by laying its eggs in the nest of some other bird to be hatched. Marmoo was then punished by being sent to earth as a crow, and it is the crow's nest which the flood bird now commonly chooses for its own egg-laying after ejecting the crow's eggs. The chick is stated to reach the flying stage before the imposture is detected. The crows then attack the chick and chase it from tree to tree until it reaches a hollow tree or is killed.

PASSERIFORMES

Cheramoeca leucosterna G. White-breasted swallow — Horne and Aiston 1924, 119, referred to a white-breasted swallow as well as a dotterel associated with a Wonkanguru rain-making ceremony, but reversed the two native names on page 175. The terms are digidigellera and wee-er wee-erlerra; the former probably belongs to the swallow.

Porzana fluminea G. Spotted crane—Tampatampana D, T. Vogelsang Wp, Hale and Tindale 1925, 58; wirra-yuldu-ulidja, Wp, obtained by us in the Northern Flinders Range.

Hylochelidon ariel G. Fairy martin—Tjuli-tjuli N, purda-muppa W; names obtained at Pandi. Tjuli-tjuli D (T. Vogelsang).

Hirundo neoxena G. Welcome swallow—Mulyamulyayapunic D, Gason 1879, 286, swallow; mulya = mud, mourning cap; the name of the bird has reference to the characteristically-shaped mud nest.

Rhipidura leucophrys Lath. Wagtail—Inderinderi Wp, obtained by us in the Northern Flinders Ranges; thindriethindrie D, wagtail, Gason 1879, 286; pintie-pintie W, Horne and Aiston 1924, 124. *Rhipidura tricolor*, woman's bird; tinditindi A, Howitt 1904, 789, probably a fly-catcher or wagtail; tindri tindri D, wiltjililki Nj, Berndt and Vogelsang 1941, 10; nginda-nginda at Ooldea.

Petroica goodenovii Vig. Horsf. Red robin—Malitelita Wp, *P. goodenovii*, Hale and Tindale 1925, 57. Choonda D, red-breasted robin, Gason 1879, 286; jupi Nj, Berndt and Vogelsang 1941, 8 (robin redbreast); ngarkundinye Pa, Schürmann 1844, 46, redbreast.

Robin—Jimbalumba, Howitt 1904, 96, Australian robin. Perhaps *Pyrrholacmus brunneus* G.

Colluricincla harmonica Lath. Shrike-thrush—Anda-anda Wp, Hale and Tindale 1925, 57.

Oreoica gutturalis Vig. Horsf. (syn. *O. cristata* Lewin). Bellbird. This bird has already been referred to when mentioning the wilyaru ceremony (see under "eagle"). Bakkubakku Pa, Schürmann 1844, 1. It is kunbalunbala of the Aranda and banbanballala of the Loritja (Strehlow 1908, 63).

Sphenostoma cristatum G. Crested wedge-bill—Koongkgarra (= nose possessor) DK, Duncan-Kemp 1933, 117.

Coracina novaehollandiae Gmel.—Tenatjeri N, pirri tjunka waliri W, names obtained at Pandi.

Shrike—Palkerrintye Pa, Schürmann 1844, 51.

Pomatostomus superciliosus Vig. Horsf. Babbler—Inyula Wp, Hale and Tindale 1925, 58; unulunula Wp, (onomatopoeie) obtained by us in the Northern Flinders Ranges.

Pomatostomus ruficeps Hartl. Babbler—Inyula Wp, Hale and Tindale 1925, 57.

Epthianura tricolor G. Crimson chat—Milyala kuppera W, obtained at Pandi. The Aranda call it ninchi-lappa-lappa and consider that men who in ancestral times were continually painting themselves red were changed into this scarlet-fronted chat (Spencer and Gillen 1899, 652). Strehlow's Aranda totem No. 81 (1908, 63), ninjalapallapalla is, no doubt, the same.

Ashbyia lovensis Ashby. Desert chat—Wee-icka DK, Duncan-Kemp 1933, 57 (yellow and brown gibber bird or paper-bag bird resembling the orange desert chat). Onomatopoeic name. Mrs. Duncan-Kemp told the local legend of the Kalidgaworra and Dubbo Downs tribesmen [Mittaka]. In ancestral times the huge dragon-lizards, Printhee [parenti of Central Australia, *Varanus giganteus*], Kwooleudee and Boolah-dee fought for possession of a woman, Wee-icka (white flower), and fought so hard and dug the ground so much that the mountains fell and covered the plain with stones (gibbers). White Flower died, so Printhee (presumably the victor) was without a wife. He lived in a cavern, from which he emerged regularly to raid the tribes and capture the most desirable women for wives and tore to pieces those refusing to wed. Wee-icka became transformed into the little gibber bird or desert chat which has to make its nest in a hole scraped out in the stony soil, and its penetrating call, "wee-icka wee-icka," tells the tribesmen that White Flower still lives amongst the gibbers. White (1917, 458) gave

a brief account of the bird's habits. In the lower Eyrean region the term gibber bird is applied to the dotterel, *Peltohyas australis* (Morgan 1930, 267). Mr. Vogelsang informed me that poothoopoothooka D, Gason 1879, 286, sparrow [putuputuka] was the desert chat, and was termed locally a sparrow.

Lark (? *Cinclorhamphus cruralis* and *C. matheosii*, both reported by Morgan 1930, 272, to be common in flooded areas; ? *Mirafra horsfieldi*), dere-lja Nj. Berndt and Vogelsang 1941, 7; thiewillagie D, Gason 1879, 286. T. Vogelsang informed me that the latter (tiwilitja D) was the diamond sparrow; it was so recorded by Berndt and Vogelsang. Kutjikutjijiri D, Fry 1937, 206, a lark; kutji-kutji D, Stirling and Waite 1919, toa 217, unidentified. Kulyuunu Pa, Schürmann 1844, 20 (native lark).

Melurus assimilis North. Wren—Yuruyurunya Wp, Hale and Tindale 1925, 57. Kutji-kutji, kutjikutjijiri D (T. Vogelsang); recorded by Fry 1937, 206, as a lark.

Artamus personatus G. Woodswallow—Ralpula Wp, Hale and Tindale 1925, 57. Warraka Pa, Schürmann 1844, 69, swallow; warra (waru) = grey, hence the name suggests a greyish swallow, e.g., *Artamus personatus*.

Myzantha flavivula G. Honey-eater—Madlaci-tana Wp, Hale and Tindale 1925, 58. Schürmann 1844, 64, reported tyityapi Pa as the name of a "honey-sucker" (tyi suggests tiwi = flower).

Wattle birds—Ngarkarko, ngarkabukko Pa, Schürmann 1844, 45; apparently the two species, *Anthochaera carunculata* Shaw and *A. chrysoptera* Lath. Ngark-ngarko is obviously onomatopoeic and resembles closely the call of the large wattle bird, *A. carunculata*; presumably the other term applies to the smaller wattlebird.

Anthus australis Vieill. Pipit—Yaliworuna Wp, Hale and Tindale 1925, 57.

Taeniopygia castanotis G. Zebra finch—Ithi Wp, Hale and Tindale 1825, 57.

Zonaeginthus [*Staganopleura*] *gutlatus* Shaw. Diamond sparrow—Iti Nj, tiwilitja D, Berndt and Vogelsang 1941. Tiwiltya, unidentified totem in southern Eyrean region, Howitt 1904, 96, is obviously the same.

Passer domesticus. Mr. Vogelsang stated that the sparrow was called by the Dieri, tiwilitja pirna (tiwi = flower; pirna = large; tiwilitja = diamond sparrow), i.e., a large kind of finch.

Corvus ceciliae Math. and *C. bennetti* North, and in the southern part of the region, *C. coronoides* Vig. Horsf. Curr's correspondents (1886) supplied the following terms for crows: wokkoola A. Todd; wokkala A, Jacobs; wakilla A. Warren and Hogarth; wackala N, Cornish; waucurla K, Kingsmill; wawkala Wp, Gason; woocalla Pa, Green; wawgala Bi, Curr; wakala Pp, Eglinton; worcala Ja, Green; walkala Wp, Wills; wawkerlo Kg, Heagney; waukerlo Ku, Heagney; walkulla Nu, Valentine; wolko, koro wolko Wp, Phillipson. Wongara Pa, Sawers; wornkarra Pa, Le Souef and Holden; wongala Pa, Beddome. Kowulka Wa, Crozier; kaulka Wa, Dewhurst; kowilka N, Paull; kowulka Ya, Cornish — D, Gason; kaoolika Ya, Salmon; kawolka D, Jacobs. Wathakur Wk, Myles. Worgaritchee Te, Sullivan and Eglinton; wakaretche Te, Foott; worga B, Sullivan; wagoo Wi, Dix; wakoo Ma, Reid; wako and warko of various Darling River tribes; wokeri Kw, Anon; wakeri Ky, Machattie.

Other references are: kowulka D, Gason 1879, 286; kookunta Ka, Wells 1894, 520 (not eaten, p. 517); wukkalla A, Helms 1896, 316; wakla Wp, Hale and Tindale 1925, 57; wakala Nj, wakla Wp, Berndt and Vogelsang 1941, 5; wornkarra Pa, Schürmann; wakerdi DK, Duncan-Kemp 1933, 114; kaualka D, totem, Howitt 1885, 6; wakala A, Spencer and Gillen 1899, 60, 114; workerdi Ka,

Roth 1897, 50; wakerdi Pp, wakala Pp, Roth 1897, 39, 50; kawalka, kowulka D, Fry 1937, 188, 278. We obtained the names kaua-ka N, and wakala W, at Pandi. Howitt (1891) reported crow totems as follows: kaualka D (p. 38), wakalo An (39), and wogarachi Ka (39); and in his book (1904) he recorded the following totemic names: kaualka D (p. 91, 780, 783), N (94), Wo (95), wokula W (92), wokalo An (93) wokala A (94), and warogatchi Kd (97). Several of the toas (258, 395, 297 D, 197 Ya) have reference to Kawolka (Stirling and Waite 1919).

Mention has been made earlier of Wakerdi as a constellation (Duncan-Kemp 1933, 123); and of the legend relating to the crow and the flood bird, *Scythrops*.

Other crows—Karruwogona Kd, small crow, Howitt 1904, 97 [*Corvus bennetti*]; mena-malkara Nj, white-eyed crow, Berndt and Vogelsang 1941, 5 [*Corvus ceciliae*]; kawalka D, *Corvus coronoides*, Eylmann 1908, 167.

Strepera fuliginosa G. Black bell-magpie—Piralla Pa, Schürmann 1844, 57 (black magpie).

Cracticus torquatus Lath. Grey butcher-bird—Audipi Wp, Hale and Tindale 1925, 57.

Gymnorhina tibicen Lath. Black-backed magpie—Wurukuli Wp, Hale and Tindale 1925, 57; koorabankoola D, magpie, Gason 1879, 286.

Gymnorhina hypoleuca G. (syn. *G. leuconota*). White-backed magpie—Kurra Pa, Schürmann 1844, 23 (magpie). Berndt and Vogelsang 1941, 7, mentioned bindi-garu Nj as the small black-backed magpie; the use of the term "sma!" suggests that the bird was not *Gymnorhina tibicen*, but may have been the "Murray magpie," *Grallina cyanoleuca* Lath. (syn. *G. picata* Lath.), or perhaps *Cracticus torquatus* Lath.

Grallina cyanoleuca Lath. Peewit—Mati-mati D (very short a), T. Vogel-sang.

Unidentified birds—Yellow-breasted bird, arku-eta Nj, Berndt and Vogelsang 1941, 4 [*?Ptilotis penicillata*]. Stirling and Waite (1919) mentioned won-patjara W, toa 320.

Unidentified birds whose Pangkala names were recorded by Schürmann 1844: irerinye, a species of sea bird (p. 8); kulka ita (19); kurdli ita (MS); murrerinye (36) [this term resembles murrara, i.e., the black duck]; ngangkalla, any male bird (44); ngannelli, water bird [term is almost the same as that for the musk duck]; purperinye Pa (61), MS addition by Schürmann is "?nightingale" [perhaps the species may be *Cinclorhamphus rufescens (mathewsi)* or *C. cruralis*]; puttiperinye, putti = hair (62); tartatarta (63); tutturru, a sea bird (tuttu = song) (63) [*?sea-curlew, Numenius cyanops*]; yunyalla (87); yandutyuru, sea bird (79); yupunnu, kangaroo bird (87) [*Rhipidura leucophrys (R. tricolor)*] is suggested because of its common association with horses and cattle, probably it was similarly associated with larger herbivorous marsupials before the arrival of white men in Australia].

REPTILES

Snakes and lizards are eaten and are not skinned before being roasted. Pythons are especially appreciated, while venomous snakes may or may not be eaten. The wilyaru ceremony of the Dieri had for its object the procuring of a good supply of snakes and other reptiles (Gason 1879, 270; Howitt 1904, 798, minkani ceremony, Minkani being apparently one of the Kadimarkara—a woma—whose fossil remains are to be found in the Eyrean deltas). Young people of the Ngameni were not permitted to eat a fat snake (such being reserved for their elders); the penalty for disobedience was the turning of the hair grey (Stirling and Waite 1919, toa 55). Amongst the Pangkala, lizards were the proper food for girls when puberty was to be accelerated, and snakes for women to promote

fecundity (Schürmann 1846; 1879, 220; Wilhelm 1861, 176). Thootehoo [tjutju] D. Gason, 1879, 304, reptile or insect; tjuntju D. Fry 1937, 272, reptile.

Horne and Aiston (1924, 137) reported that a charm (tharta, W) for protection against attack by a snake was worn at night around the forehead or waist. It was made of hair smeared with ochre and grease mixed to form a stiff paste, so that there were projecting knobs of ochre. This charm was supposed to give warning by pricking the skin of the sleeper and thus awaken him if a snake or an enemy should invade his camp. These authors also reported (p. 161) that amongst the Wonkanguru, after subincision, the fat of a venomous snake was rubbed on the wound.

Kadimarkara is a term frequently used in the region, especially in connection with local legends. These were supposed to be monsters resembling crocodiles and the large fossil bones found in the area, as well as peculiarly formed rocks, are regarded as being their remains. References to these are: Howitt and Siebert 1903, 525, 532; Howitt 1904, 433, 800, 801; Stirling and Waite 1919, toas 3, 6, 64, 89.

Gason probably over-estimated considerably the lengths of various snakes when recording their Dieri name, but Waite (1929, 183) pointed out the difficulty in estimating the lengths of living reptiles, mentioning his own experience when he carefully estimated the length of a snake moving across his own room and found that his estimate of 4 feet 6 inches was based on a reptile 3 feet 10 inches long, or in other words, an authority in herpetology had over-estimated by at least 25%. Gason might be expected to make a greater error, perhaps 33% to 100%.

In attempting to identify Gason's species use has been made of the descriptions by Lucas and Frost (1896), Kinghorn (1929) and Waite (1929); and also of identifications of specimens in the South Australian Museum by T. Vogelsang, who was able to associate Dieri names with some of them.

OPHIDIA

Snake—Curr's correspondents (1886) recorded the following: wobna A, Todd — Ja, Green — K, Kingsmill; wobna Wp, Wills; wabna A, Warren — Pa, Le Souef and Holden — Pa, Beddome; wabna Wp, Phillipson; wabina A, Warren and Hogarth; wapna Pa, Sawers; woma Wp, D. Gason; wooma Ya, Cornish; worma Nu, Valentine. Wincherta K, Kingsmill. Juno Pa, Beddome. Kirtoba Ky, Machattie. Thoolperoo, thiagara Kg, Heagney. Koorianurra Ku, Heagney. Titta A, Jacobs. Tippamakatu W? Jacobs. Wonungumie (carpet snake) N, Cornish [apparently the same as warraguni A, W, referred to later]. Parday Ya, Salmon. Kadi Bi, Curr. Turu Ma, Morton; turroo Wa, Dewhurst; thuru Wa, Crozier; thora Ma, Reid; tooroo, Darling tribes, Anon; thoro, Darling tribes, Haines. Toothoo N, Paull; tutjo D, Jacobs; tuchu Yu, Howitt [tjutju]. Munga Kw, Anon. Goondarra Pp, Eglinton [koondara Pp, of Roth 1897]. Ngoothe Te, Sullivan and Eglinton. Yethe Wk, Myles; yelchi B, Sullivan. Moona Wk, Myles — Te, Foott. Teulon (1886, 213) reported the names of several kinds of unidentified snakes from the vicinity of Bourke, Darling River, mentioning that amongst the Barkindji mulkerry was another name for tooroo (snake).

Most of these terms must apply to the large python or carpet snake of the dry interior, where it is commonly called woma or womma. Waite (1917, 436; 1929, 203) was able to identify it definitely as *Aspidites ramsayi* Macleay. Stirling and Waite (1919) referred to many toas relating to the woma or tjutju D, K --- toas 9, 11, 34, 85, 159, 207. Wabna Wp, Hale and Tindale 1925, 58 (woma, *Aspidites ramsayi*); wumma Ka, Wells 1894, 519; woma, Horne and Aiston 1924, 29, 116, fig. 81, highly prized as food by the Wonkanguru; wabna

Pa, Schürmann 1844, 64 (diamond snake); woma D, Gason 1879, 285; woma, Duncan-Kemp (1933, 111); womma Pp, koondara Pp (koo = curved, bent), general term for snake, Roth 1897, 31, 34, 39); wama, woma D, Fry 1937, 284, 196; wumma A. D, Helms 1896, 316; woma D, M. Howitt 1902, 405, 408 (Wongkanguru legend of its origin); bulu-bulu D, W (young woma), M. Howitt 1902, 408; tjutju D, Gatti 1930, 118.

The gigantic (totemic) carpet snake of ancestral times was Cummurra whose activities were commemorated in a snake corroboree (Duncan-Kemp 1933, 215-216). Roth (1897, 3, 153, 160) recorded it as Kanmare (Pittapitta), a huge supernatural water-snake which was responsible for causing death by drowning. This serpent migrated from one waterhole to another along a rainbow. It is referred to briefly by Hamblly 1936, 17. Reference has just been made to Minkani, the ancestral woma (Kadimarkara) of the Arabana tribe. Howitt (1904), 801) gave an account of the killing of the muramura, Woma, and its relation to certain landmarks, including the mound springs of the region. Berndt and Vogelsang (1941, 9) reported that amongst the Ngadjuri the mythological snake was akuru, and a small red snake associated with it was habu-laru. Duncan-Kemp (1933, 279) reported Wun-yel-la as a mythical black snake.

Howitt (1891) mentioned as totemic, woma D (p. 38) and waraguni Kd (p. 39). In his later work (1904) he reported many names for the carpet snake (totemic) amongst Eyrean tribes and, since they occupy the same position in the list of murdu of the Kararu (or corresponding) moiety, they relate to the same species: woma D (p. 91, 873), N (94), Ya (95); manga Yu (92); chirka Wo (95); wadhangani W (92); wadnangari A (94); waranguim (? error for waraguni) Kd (97); uru Wi (98); turru Mi (98). Spencer and Gillen (1899, 60, 114, 657) reported wabma as an Arabana totem (obma of the Aranda, l.c., p. 653); and Eylmann (1908, 167) recorded womma as a Dieri murdu.

Python spilotes variegatus. Carpet snake—Binaru Wp, totem, Hale and Tindale 1925, 46, 58. Mudlamu Pa, Schürmann 1844, 34; warambini Pa, Sawers 1886, 132. Koorimara Pp, Roth 1897, 35 [may belong to some other species of python, e.g., *Liasis*; the term suggests koodianurra Ku, Heagney].

Berndt and Vogelsang 1941, 9, reported mudlu Nj, woma D, and binaru Wp, as the carpet snake. It has already been mentioned that woma was applied to *Aspidies*. *Python variegatus* is largely arboreal and has not been recorded from the arid region to the north of the Flinders Ranges. Mudlu and binaru are applied to the latter species.

Acanthophis antarcticus Shaw. Death adder—Yalliri Pa, Schürmann 1844, 78.

Pseudochis porphyriacus Shaw. Black snake—Nurru Pa, Schürmann 1844, 41; womgo Pa, Sawers 1886, 132 (the name suggests wanku or woukoo of other authors). This identification is uncertain, at least for womgo.

Notechis scutatus Peters. Tiger snake—Arkubi Nj, Berndt and Vogelsang 1941, 9.

Wip-aru—Gason 1879, 286, reported that wiparoo D, was applied to a long thin black snake, shaded with other dark colours, about seven feet long, its bite being followed by instant death. Helms (1896, 316) stated that wiparu A, D, possessed a light grey-yellow belly. Sawers (1886, 132) recorded wiparoo Pa as a yellow snake. Berndt and Vogelsang (1941, 9) mentioned wiperu Nj, wiparu D, as the whip snake, but they also (p. 4) reported wiparu D, and apara Nj, as names for the large adder. The latter name, if correctly applied, would refer to *Acanthophis antarcticus*, a short thick broad-headed snake, about 30 inches long, the other species, *A. pyrrhus*, being only 20 inches in maximum length. Hale and Tindale (1925, 58) reported appara as a lizard (*Hindlia*). Gatti (1930, 99)

considered that wiparu was a Dieri attempt to say vipera. The term viper is not applied in Australia, as far as I know, to any Australian snake.

There are three species which may be indicated: *Demansia textilis* (brown snake, mallee snake, mulga snake); *D. psammophis* (whip snake, saltbush snake); and *Pseudechis australis* (mulga snake). Gason's remarks regarding its highly venomous character, if correct, would seem to exclude the second which is also shorter than the other two, but he probably confused some of the characters belonging to the three species. Mr. Vogelsang has recognised the species amongst museum material; it is *Demansia psammophis* Schlegel.

Wirrawirrala D. Gason 1879, 286, a large, very venomous snake, 6 to 10 feet long, with yellow belly. The brown snake, *Demansia textilis*, is the species, though *D. psammophis* and *P. australis* may also have a yellowish ventral surface.

Mr. Vogelsang informed me that the Dieri called the Birdsville region Wirrawirra, la = from, the name of the snake implying that it came down from the Diamantina.

Marrakilla D. Gason 1879, 286, a large brown snake, about seven feet long, with a large head, very venomous and vicious. The snake is *Pseudechis australis*, which Kinghorn (1929, 159) reported as venomous, vicious, and dangerous, flattening its neck when angry. It closely resembles the brown snake in its colouration, but is relatively thicker and is rather more greenish above and greyish-yellow below.

Wonkoo D. Gason 1879, 286, a light brown and grey snake, four to seven feet long, venomous and very vicious. Berndt and Vogelsang 1941, 9, stated that wanku D was a small snake. Sawers' (1886, 132) womgo Pa, black snake, has a similar name, as has also Schürmann's warnko = wabma pulyo Pa (= small snake), 1844, 69. Mr. Vogelsang informed me that wonku D, was a general name for a small venomous snake, including the younger stages of those referred to earlier.

Stirling and Waite (1919) mentioned two toas 94 N and 185 D, wonkuturuni [wonkutukuni]; ni = to, or in the direction of; tuku = back (turu = fire); and the translation given (p. 126, 138) is "to the snake's back," the snake thus being wonku, a name referred to earlier in this section.

Unidentified snakes—Several reptiles regarded by Gason as snakes are almost certainly legless lizards (Pygopodidae), though blind snakes, Typhlopidae, are a possibility. I have listed most of them under Pygopodidae.

Thandandiewindiewindie D. Gason 1879, 286, a small black venomous snake, 5 feet 6 inches long, with a small mouth. Thoona D. Gason 1879, 286 grey snake, 5 feet long, venomous; toona means greyish-white, the colour of crudely burnt lime (T. Vogelsang); perhaps the name applies to a young *Demansia psammophis*. Korimora Kd, totem, brown snake, Howitt 1891, 39; 1904, 97; if it is the brown snake it is *Demansia textilis*; if a brown Pygopodid, it probably would be *Lialis burtonii* or *Delma fraseri*. Eylmann (1908, 167) reported tuku pirra pirra D, totem, as a species of snake (tuku = back, pirra = flat and broad, T. Vogelsang); if a snake, then it may be *Pseudechis australis*. Muni Pa, small black snake, and nilteni Pa, a small species, Schürmann 1844, 35, 39. Mulunkoorra D, Gason 1879, 286, black and green spotted venomous snake, 5 feet long, perhaps an erroneous description of the harmless *Pseudodelma impar* or *Lialis burtonii*.

Wells (1894, 521) reported tippa Ka, coola Ka, as snakes, and tundri-prilla Ka, as a venomous species; he mentioned that wooti-inna and yarra-gun-inna were names of women, named after snakes (p. 519). The latter were presumably wooti and yarraguni. The latter name is obviously the same as warraguni, carpet snake. Tippa is probably the same as Jacobs' titta A, and tippamakatu W? (pythons). Coola (kula) is probably Gason's koolielawirrawirra which seems to be a legless lizard, *Pseudodelma impar* Fischer.

LACERTILIA

GASON (1879, 260) gave an account of the Dieri story of the creation of human beings. The Muramura first made a number of small black lizards, the same kind still to be seen under dry bark, and promised them power over all other creeping things. He then altered their feet into fingers and toes and by means of his forefinger made the face into human form and then placed one of the lizards in a standing position which it could not retain until the tail was cut off—thus the human erect posture was attained. The sexes were then differentiated. Gason's remark indicates that it was a gecko, perhaps *Peropus variegatus*, moonkamoona-karilla of Gason (p. 285). Teichelmann and Schürmann (1933, 148) reported that amongst the Kaurua tribe tarro-tarro was the name of a species of lizard and also of a fabulous person said to have made the male and female sexes. Schürmann, when dealing with the Pangkala tribe, reported (1879, 241) that a small kind of lizard, the male of which was called ibirri and the female waka, was believed to have divided the sexes in the human species and that male natives tried to destroy the waka, while women vented their hatred on the ibirri. Schürmann, in his earlier work (1844, 5, 65), gave similar information.

Geckonidae, frequently termed wood adders locally. *Gymnodactylus milii* (*milii*) Bory St. Vinc., aljen-nara Wp, Hale and Tindale 1925, 58.

Peropus variegatus D and B, mun-ka Wp, Hale and Tindale 1925, 58; Waite 1929, 85 (also reported as dtella); munka Nj, small wood adder, Berndt and Vogelsang 1941, 4, must refer to the same species; moonkamoona-karilla D, small black short-tailed lizard, generally found under bark, Gason 1879, 285, also belongs probably to the same species. The species is also called pitji-la D (T. Vogelsang); pitchi = bark, la = from. Pilta W, Howitt 1904, 784, a small lizard living under bark may be either *Peropus variegatus* or *Gymnodactylus milii*.

Heteronota bynoei Gray—Tjupa-tjupa D (T. Vogelsang). Choopa D, Gason 1879, 285; tiuba-tiuba Ka, N, Howitt 1904, 648; and tiubba-tiubba, Howitt 1904, 717, belong to the same species, and probably kupa Ya, Salmon 1886, 24, also.

The Kuyanni legend of the gecko, adno-artina and the dingo in ancestral times (Horne and Aiston 1924, 128-129) has already been referred to earlier in this paper. *Gymnodactylus milii* is a probable identification.

Mrs. Duncan-Kemp (1933, 274) referred to coora-bin DK, the frog (or barking) lizard, a gecko, which was regarded "as a harbinger of evil, incarnating the tarkee (disembodied spirits) who are jealous of human beings in the flesh and wander the earth on evil intent"; the tarkee having a place in stellar mythology and occupying the black pit visible just below the Southern Cross. *Gymnodactylus milii* or perhaps *Nephrurus lacvis* De Vis (illchiljera of the Aranda) are possible identifications.

Pygopodidae—Some of Gason's spotted "snakes" are undoubtedly legless lizards, all of which are harmless.

Pygopus lepidopus Lacep—Wandaru D, T. Vogelsang. Wandaroo D, Gason 1879, 286, green and yellow snake, about 5 feet long, with very thick body, quite harmless, with sleepy appearance. Its actual length is only 2 feet. Howitt (1904, 96) recorded wonduru as a large snake, totemic amongst the tribes of the lower Diamantina and Warburton; he has previously (1891, 39) reported wanbura An, as a snake totem. Kopula Kd, totem, a speckled brown snake, Howitt 1891, 39; 1904, 97; is probably *P. lepidopus*.

Koolielawirrawirra D, Gason 1879, 286, a small harmless yellow and black spotted snake, 3 feet long; probably a Pygopodid, *Pseudodcla impar* Fischer or perhaps *Lialis burtonii*.

Kurawnilieyackayackuna D, Gason 1879, 286, a flat-headed venomous snake.

4 feet long, with green back and with yellow spots of its body. *Lialis burtonii* is a probable identification because of its colouration and its narrow, pointed, flattened head. Milkunkoorra may be *Pseudodelma impar* or *Lialis burtonii*.

Lialis burtonii—The species was recorded from the Eyrean region by Zietz in 1917, and by Lucas and Frost (1896, 125) from the Macdonnell Ranges. The following references may belong to the species. Kadapa N, slow worm, totem, Howitt 1904. Mithindie D, Gason 1879, 286, white and yellow spotted snake, about 3 feet long, harmless; mithindi Ya, totem, Howitt 1904, 95, slow worm, occupying the same position as kadapa in the list of Kararu totems, also spelt mitindi (p. 96); mittindi D, snake, Eylmann 1908, 167; Teulon 1886, 213, reported meetindy Ba, as a kind of snake.

Agamidae, jew lizards and allies; abundant in the region under consideration.

Amphibolurus barbatus Cuv. Frilled lizard—Kadni Wp, Hale and Tindale 1925, 58; kudnu Nj, ardnū, Wp, frilled lizard, Berndt and Vogelsang 1941, 7 (ardnū is *Trachysaurus* according to Hale and Tindale); kunnie D, Gason 1879, 285, jew lizard; kadni Ka, Wells 1894, 521, lizard, — D, Fry 1937, 190, 194 — A, Helms 1896, 316, *A. barbatus*; kadni T, D, Stirling and Waite 1919, toas 232, 307, lizard; kanni D, totem, Eylmann 1908, 167; kani D, Fry 1937, 284.

Howitt (1891, 39) recorded kadni An and kani Kd, frilled lizard, as totemic. In his book (1904) he published many references to kani (which he identified as a jew lizard, *Amphibolurus barbatus*, p. 783), a totemic lizard in the Matteri moiety: kani Ya, iguana (p. 95), Yu, iguana (92), west and north-west from Lake Eyre (96, 716); kanni Kd, frilled lizard (97); karni Wi, Mi, frilled lizard (98); kadni N, iguana (94). A ceremony associated with bartering was termed kani-nura (nura = tail) because the tail of the lizard was used as a token in connection with taking of a very young boy (also termed a kani-nura) from his mother's people to those of his father and with his subsequent return (Howitt 1904, 716-717). Kadno Pa, a yellow striped lizard, Schürmann 1844, 9, may be *Amphibolurus barbatus* or *A. muricatus*, probably the former; the name is so similar to those just given, and the species has two definite longitudinal bands of lighter colour than the rest of the back; but they are not yellow.

Berndt and Vogelsang (1941, 7) reported kudnu Nj, and kadni D, Wp, as the jew lizard, recording other names for the frilled lizard; these authors seem to have confused three species, since Hale and Tindale stated that ardnū was the Wailpi name of *Trachysaurus*.

Amphibolurus pictus Peters -- Kadiwaru D, T, Vogelsang, waru = grey; kudieworoo Gason D, 1879, 285, red-backed lizard; kadiwaru D, Howitt 1904, 717, — D, Fry 1937, 284 -- Ya, M, Howitt 1902, 411; iti-iti Nj, kadiwaru D, Berndt and Vogelsang 1941, 7, small lizard.

Tympanocryptis cephalus Günther—Titjuri D, T, Vogelsang; thitthurie D, Gason 1879, 285, small rough-skinned lizard, (thitti = ticklish, referring to the prominent spines on the back of the species). Madakata kata D, T, Vogelsang; manakata kata Ka, N, Howitt 1904, 648; Mr. Vogelsang informed me that Howitt's name was incorrect; mada = stone, mana = mouth, kata = harsh noise, its name referring to the sound it makes when moving under stones in the gibber country.

Moloch horridus Gray—Naiari DK, Duncan-Kemp 1933, 63; same name applied by the Murrannudda clan to the little black ant on which it feeds (p. 64); habits described, p. 64-66. Mrs. Duncan-Kemp (p. 271-272) referred to the place of these "sandhill devils" in aboriginal stellar mythology. In ancestral times these lizards were virgin women who kept to their own territory and, when gathering food, protected themselves with dogs against possible molestation by men.

Wherever the naiaris rested they left babies behind them in the form of white spirit stones, certain localities still being termed Naiari Waters. These offspring were warned against speaking to men, since the latter would take them away if they did. The leader of the ancestral men and a great hunter was Balleroo who wanted these naiari women as his wives and endeavoured to hunt and trap them, but the women fled to the sky, taking their own dogs with them. Balleroo followed them there and can be seen at night with his white girdle (the Milky Way) chasing the women (now the seven sisters of the Pleiades) but never catching them as the latter reside in Karani, *i.e.*, the women's country. Later the naiaris were changed into the little lizards, which are still voiceless because their mothers in ancestral times had not permitted them to speak. Naiari ceremonies are performed only by women.

Scincidae

Hinulia fasciolata Günther, appara Wp, Hale and Tindale 1925, 58.

Ablepharus boutonii Desjard., ngarupuruna Wp, Hale and Tindale 1925, 58.

Trachysaurus rugosus Gray, mudlu, arnu Wp, Hale and Tindale 1925, 58; alda Wp, sleepy lizard, Berndt and Vogelsang 1941, 7; kalla Pa, sleeping lizard, Schürmann 1844, 11; ngura-wordu-punnuna D, Howitt 1904, 803 (nura = tail, wordu = short); nurawordubununa D, Stirling and Waite 1919, 109, 145, toas 75, 130, 132, 134, 148, 183, 235, 263. The last two terms are the names of a Muramura who figured in a certain legend (toa 235) described by Howitt 1904, 803-806, part of his wanderings being perpetuated in the serpentine course of a portion of Cooper's Creek. He was one of the Kadimarkaras. The legend was also given by Howitt and Siebert (1903, 528-531), the name being reported as nurawordubununa. The latter is the correct name since nura means a tail, while ngura is a leg. Stirling and Waite, toa 235, tjutjunuraworduni, translated the term as "to the stumpy crocodile's tail," but tjutju means snake (or reptile) and no crocodile possesses a stumpy tail (nura wordu). The regenerated tail of *Pygopus lepidopus* is sometimes short and broad (Waite 1929, 91, fig. 64).

Tiliqua scincoides Shaw. Blue tongue—Karrennye Pa, Schürmann 1844, 16, "ratling lizard." It is presumed that "ratling" means ratlin, the transverse bars forming steps of a rope ladder and, if so, then the species would be a markedly barred lizard such as *Tiliqua* spp., or perhaps *Egernia cunninghami* or *Hinulia fasciolata*. The bands are few and wide in *Tiliqua* and least obvious in *Egernia*. Karrennyerenye means blue or purple (Schürmann 1844, 161) and the name of the lizard no doubt refers to the blue tongue which *Tiliqua* displays when on the defensive.

Omolepidota branchiale Günth.—Womaloora D (= shining, and has reference to the appearance of the skin), T. Vogelsang; Gason 1879, 285.

Hemiergis peroni Fitz.—Oolaumi D, T. Vogelsang; Gason 1879, 285, lizard with transparent skin, spotted yellow and black.

Rhodona bipes Fischer—Kultjandarra D, T. Vogelsang; kulchandarra D, Gason 1879, 285, "lives under the ground and only appears above after heavy rains. The natives describe it as venomous and affirm (that) its bite is certain death, wherefore they are very frightened of it, and even avoid killing it from fear of its poisoning their weapons." It is, of course, a harmless sand-burrower. Waite (1929, 165) recorded it from Cooper's Creek.

Varanidae, "iguana" of authors, goanna.

Varanus giganteus Gray, popular name in Central Australia is perentie or sjonba, Waite 1929, 125; printhee Duncan-Kemp 1933, 57. The latter author mentioned the legend of the desert chat and the perenti, termed karapara in her district, parapara by the Pittapitta and paripara by the Karanya (Roth 18997, 37,

50). This has already been referred to in the present paper. Berndt and Vogelsang 1941, 6, were in error when stating that the large goanna, *Varanus gouldi*, was pirinti D. Mr. Vogelsang informed me that the term, when used by the Dieri, belonged to *V. giganteus*. The Aranda names for the latter are echumpa and irrunpa (Spencer and Gillen 1899, 648, 651), though Lucas and Frost (1896, 134) called it parenthie.

M. Howitt (1902, 412-413) published an Arabana legend which explained the colour pattern and the habitat of the pirinti A, and of kapiri (*V. gouldi*), the former now being restricted to the rocky or hilly region north of Oodnadatta, and the latter to the more sandy country where kulva (= kulva, native name for the needle-bush, *Hakea leucoptera*) occurs.

Varanus varius Shaw—Patara-muru D, T. Vogelsang. Patharamooroo D, Gason 1879, 285, black iguana, reported as very rare in the Dieri region. Patara = boxtree, *Eucalyptus microtheca*, or timber; muru = black; the attitude of this very dark large species suggesting a small blackened branch of a tree.

Varanus gouldi Gray—This is the common "goanna" of the drier regions of this State and is widely distributed in Australia, especially in the more sandy, treeless portions. Kopirri D, Gason 1879, 285, kaupirrie (p. 299). Howitt (1891) reported as totems, kopiri D (p. 38), kopri An (39), tura-guru Kd (39); and in his later work (1904) recorded kapiri (96, 798), kaperi (783), birnal Mi (98), and turra-gurra Kd (97). Capirie A, totem, Spencer and Gillen 1899, 60; radna Wp, Hale and Tindale 1925, 58. Kapiri D, A. W. M. Howitt 1902, 405, 406 (lace lizard), 408 (legend relating to its origin), 412-413 (Arabana legend explaining distribution and colouration); kapiri, kaperi D, Fry 1937, 196, 284; karpirri A, Helms 1896, 316 (*V. gouldii*).

Berndt and Vogelsang 1941, 6, reported budna Nj, kapiri D, for "goanna"; and pirinti D, radna Wp for *Varanus gouldii*. Pirinti does not belong to *V. gouldii* but probably all the remaining four terms do, though in the Flinders Ranges *V. varius* may occur in addition to *V. gouldii*; the term budna may possibly belong to it, since the colouration of *V. varius* resembles that of the parenti.

The special ceremonies (kaupirrie wima [winma = song] of Gason 1879, 279; minkani of Howitt 1904, 798) associated with the increase in numbers of woma and kapiri were referred to by these authors. Gason also reported that this animal was regarded as a conductor of lightning and that during a thunderstorm it buried itself in the sand. If eaten by children, the latter, when they grew up, would become grey or develop much hair on the breast. Berndt and Vogelsang (Trans. Roy. Soc. S. Aust., 63, 1939, 171; Rec. S. Aust. Mus., 6, (4), 1941, 378) referred to a Dieri rain-making ceremony involving the rubbing of goanna fat into the body of a boy in the belief that the grease would cause vapour to rise from the body and form into a cloud from which rain would fall.

Roth (1897, 50) reported that the smaller species of "iguana" was termed karingara by the Pittapitta and Karanya tribes. Probably *V. gouldi* was the lizard so indicated. Howitt (1904, 95) mentioned karingara as a Yauorka totem, but gave no indication regarding its identity. It occupied a position amongst Matteri murdus corresponding to mungalli Yu (p. 92, 446) and wompirka N (p. 94), both termed lizards. Wells (1814, 521) recorded wump-pikka Ka as an "iguana." We can accordingly add all these terms to the list of names for *V. gouldi*.

Unidentified lizards—Schürmann (1844) recorded the following Pangkala names of lizards: katyeti (p. 17); pardna (53); yarrapalla, a small species (81) (yarra = quick—perhaps *Himulia* sp.); ibirri, "a small species of lizard said to have separated the sexes; women call it waka; whenever one of these little animals makes its appearance it is usually the cause of merriment and jokes" (p. 5, 65); it has been suggested earlier in this paper that the species was one of the geckoes.

perhaps *Peropus variegatus*. In the wi-lu (curlew) legend, Schürmann (1879) made no mention of lizards, though he referred to them (ibirri and waka) in the next legend as indicated above. Wilhelmni (1861, 194; 1862, 34) altered that legend by stating that the two youths became small lizards whose male was ibirri and whose female was waka.

Gason (1879, 285) reported the Dieri name of a lizard which we have not been able to identify: wakurric, about three inches long, flat-headed [probably a small gecko such as *Diplodactylus vittatus*; Teichelmann and Schürmann (1933, 150) recorded wakurri, Kaurua tribe, as a lizard].

AMPHIBIA

Frog—Gason (1879, 286) mentioned kulathirric D and thidnamura D (thidna = foot; mura = hand) as an edible frog and toad respectively. Howitt stated that amongst totem animals were tidnamara D (1885, 6; 1891, 38), orikomatu Kd (1891, 39) and kurdmuri An. bullfrog, (1891, 39). In his later work (1904) he referred to the following; tidnama D [? error for tidnamara] a small frog (p. 91); tidnamara W (92), A (94), N (94), and tribes south-east from Pando, i.e., Lake Hope; kaladiri D (91, 783); taralyu N (94); kutyarku Yu (92); kuyarku Ya (95), apparently the same as kutyarku, since kuyaku Yu was mentioned as a bream (92); kelka A (94); orekomatu Kd (97). Kalatiri D, Gatti 1939, 116. Tinamara D. Fry 1937, 272. Green (1886, 126) reported ngerua Wp [ngarna of other recorders]. Since kaladiri, kutyarku, yelka and kuyarku all occupy similar positions in the lists of murdus of Eyrean tribes, as published by Howitt (1904), they all probably refer to the same species of frog; while tidnamara, a small species, occupies a different position, though both groups of totems belong to the Kararu moiety. Howitt was thus apparently referring to two different species, a larger represented by kaladiri (kulathirric of Gason), and a smaller represented by tidnamara (thidnamura of Gason). Orekomatu, a totem of a tribe along the Cooper much further to the east, occupied almost the same position as kaladiri and probably refers to the same species. Eylmann (1908, 167) mentioned tidnamara as a Dieri maddu. Berndt and Vogelsang (1941, 6) reported waka Nj, kalatiri D, and ngar-na Wp. The last-named had already been recorded by Hale and Tindale (1925, 58) as the Wailpi name for the waterhole frog, while the large species from the sandhill country was stated to be yalja; the latter stored up water and thus permitted its aestivation, but it was dug up by natives and its stored water utilized in an emergency (p. 48). Spencer (1896a, 160-165) gave an account of the habits and published figures of the adult and tadpoles of *Chiroleptes platycephalus* in Central Australia. This water-holding frog, whose habits Waite (1929, 246) described under *Phractops platycephalus*, forms its burrows in the harder claypans rather than in the beds of sandy creeks. The latter situation is not firm enough for *Chiroleptes* but is the favoured habitat of the rather large *Limnodynastes ornatus* Gray which burrows down into moist sand, about a foot below the surface of the creek bed (Spencer 1896, 18-19, 42-43), and though becoming swollen with absorbed water, it does not become so distended as the former. *Chiroleptes* is especially adapted for survival in a dry environment by its ability to store abundance of water in its body cavity and elsewhere, and to burrow some distance down into the clayey soil where it can survive for months. *Limnodynastes* was stated to be not so abundant as *Chiroleptes* or *Hyla rubella*. Spencer pointed out that the fully-distended frog became nearly spherical and just filled the cavity at the end of its burrow, the walls of the cavity being moist but not wet. These frogs apparently breed very soon after rain or flood and pass through the tadpole stage very rapidly.

The third species of frog which occurs commonly in waterholes is the small, variously coloured, *Hyla rubella* Günther, a description of the adult and larvae

from Central Australia being given by Spencer (1896, 170-172) who stated that, after rain, it was as common as, or commoner than, *Chiroleptes*. It measures little more than an inch in length whereas *Chiroleptes* reaches 2.6 and *L. ornatus* about 2 inches long. *Heleioporus pictus* Peters also occurs in Central Australia but is much less common than the three mentioned. Its size is similar to that of *L. ornatus*. Waite referred to these species in his handbook on South Australian reptiles and amphibians (1929). Kaladiri (and the other names which we have associated with it) and yalja are *Chiroleptes platycephalus*, and tidnamara and ngarna belong to *Hyla rubella*. Schürmann (1844, 16) mentioned karranna as a Pangkala term for a frog, and in his MS. additions he reported itine as a species of frog, and kulbi as a tadpole. Karrana is really the same as ngar-na (onomat.) and applies without doubt to local species of *Hyla*.

Duncan-Kemp (1933, 45) referred to the presence in the Diamantina region of two kinds of edible frogs, a large grey-green lethargic species found aestivating deep in the mud of dry creeks, and a very small red-capped frog. The former were stated to possess storage tanks in their abdomens and may be either *L. ornatus* or (more probably) *C. platycephalus*. Tadpoles were caught by hand by children and eaten alive (p. 288).

Roth (1897, 50) mentioned that koo-yer-ko was the name of a frog amongst the Karanya tribe; this is obviously the same as Howitt's kuyarku or kutyarku (onomat.) of the Yaurorka and Yantruwunta. He reported (p. 38, 94) that there were three edible frogs in the Diamantina region inhabited by the Pitapitta: taralko, a large "bullfrog," 4½ to 5 inches long; koonpa, 3½ inches; and nemaka 2½ inches; a general term for any small frog was neng-o. In addition there were large greenish frogs, ka-ti-loa (p. 94), which were apparently not eaten, but were dug up from their burrows in hard ground with yam sticks or from sandy soil. Katiloa was probably either *Chiroleptes* or *Limnodynastes*, or both. Nemaka may have been *Hyla rubella* and taralko may have been *L. ornatus*.

Limnodynastes dorsalis Gray (presumably the same species as that identified by Spencer 1896 as *L. ornatus*) was stated to be unchichera (totem) of the Aranda. Strehlow (1908, 66) identified injitjera (Aranda), nganggi (Loritja), as *Heleioporus pictus*.

Duncan-Kemp (1933, 147) referred to "Wompoo, half bird, half frog, a fantastic creature of swamp and brake," to whom offerings of pituri wrapped in a coolibah leaf, were placed in the fork of a tree overhanging the water.

PISCES

There are few definite identifications recorded. The chief general terms for fish are kuya and paru. Curr (1886, 3) stated that Bulloo and Paroo, names of two long rivers which flow south towards the Darling, both mean fish, but apart from a reference by Todd (1886, 10) relating to Arabana territory, I cannot find any other indication of bulloo as a name for fish. In the Bulloo region, Curr's lists give kuya and paru as the terms.

TELEOSTEI

Curr's correspondents (1886) reported the following terms for fish: bulloo A. Todd. Paroo A. Warren and Hogarth, Todd, Warren — N. Paul — Ya, Cornish — Yu Howitt — Wp. Phillipson. Paroo, etc. (each sort has its particular name), D. Gason. Koopi Pp, Eglinton; koppi Ky, Machattie. Kammoo Bi, Curr. Wongo Kw, Anon. Kooya Ya, Salmon — B, Sullivan — Pa, Sawers; kooa Te, Sullivan and Eglinton — Ma Morton; kooia Wa, Crozier; kooyea Ja, Green; kuya Pa, Le Souef and Eglinton — Wa, Dewhurst; queea Nu, Valentine; gooya Kg, Heagney; gooia Te, Foott; guia Wk, Myles. Goombilla Ku, Kg Heagney. Worri A, Jacobs; warrie N, Cornish; morri [? error for worri] D,

Jacobs. Roth (1897, 31) listed ko-pe as a general term for fish amongst the Pittapitta; and koopa amongst the neighbouring tribes [hence koopi and koppi in Curr's list]; koo (as a root stem) = water. Paru D, Fry 1937, 279.

Wells (1894) gave the following names for different fish, multa-multa, mudlacoopa, paroo and warrie Ka, Eleanor and lower Diamantina. He mentioned that fish fat was mixed with crushed seeds of nardoo [ngardu = sporocarps of *Marsilea Drummondii*] and then baked in hot ashes (p. 517). The method of using a large net made of native flax was mentioned (p. 518).

Gason (1879, 287, 301) stated that fish were few and unimportant (as articles of diet) in the Dieri country, being caught in the waterholes which could be termed creeks or rivers only after floods had arrived in that region. He gave names of four kinds, paroo (a small flat bony fish), multhoomulthoo (a fish weighing 3-3½ lbs.); moodlakoopa (a fish averaging 4 lbs.); and murkara (a large fish). A net (mintie), usually 60 feet long by 3 feet wide, and made from rushes, was used for fishing (p. 289). He mentioned kurdiemurkara (p. 299): "a suppositious large fish at the bottom of lakes and deep waters." This fabulous creature, kadi-markara, regarded by others as some kind of reptile, figured frequently in the legends of the region (Howitt 1904, 433, 789; Stirling and Waite 1919, toa 3) and is commemorated in Curdimurka, a railway station west of Lake Eyre.

Howitt (1891, 38) mentioned as Dieri murdus, kirapara (a bone-fish) and markara (mullet). In his book (1904) he listed the following totem fish: markara D (p. 91), N (94); makara (783) — apparently the same as markara; kuyaku Yu, bream (92) [kuyarku is termed a frog Ya on page 95, where it is probably a misprint for kutyarku, a frog]; kirhapara, kirhapara N (94, 96), not identified but the term kirapara was used by him in 1891 for a "bone-fish"; mudlakupa, no details (96); ngampuru Ya (95) [name applied to a caterpillar Yu (92)]; namba, bone-fish, Wi, Mi (98). He mentioned (448) as terms for fish, paru D; kuya Ya, Yu; and stated (450) that kuyi-pana (pana = seed; fish seed) was associated with the mortuary practices of some tribes, e.g., Tangara (i.e., Antakirinya).

Eylmann (1908, 167) stated that the Dieri fish murdus (maddu) were markara (a large species) and kirapara, a kind called "red fish" by the natives. He published an illustration of the mesh of a Dieri fish net.

Some of the toas mentioned by Stirling and Waite (1919) referred to fish (paru D) — toa 145, 281. Glassy stones (gypsum) served as fish charms (parumarda, marda = stone). Dried fish were pounded into a meal by the Dieri and kept in that form for future use (p. 133). Markara A, D, a large species; mudlakupa A, D, a small fish (? bream), Helms 1896, 316.

Horne and Aiston (1924) mentioned that paroo W was the black bream (*Therapon* spp.), and murakara was the perch or "yellow belly." They stated that the fibre string net was called wooroomarroo and the rush-made net, pinegara W (p. 62). The method of net-fishing was described (p. 63-64).

Berndt and Vogelsang (1941, 6) gave the terms guja Nj, paru D, for fish; and witi-wala Nj for any kind of fish trap. At Pandi we obtained the terms warri N, W, for perch (*Therapon percoides*) and a smaller, paler species of the same genus, ? *T. unicolor*) and makara N, W, for the "yellow belly," *Plectroplites ambiguus* (callop or tarki of the lower Murray River).

We can now attempt to identify the various fish. The largest species is *Plectroplites ambiguus* = makara. Mudlakupa (mudla = nose; kupa = young, small, same term for child) is its young stage, according to T. Vogelsang, its name being given on account of the shape of the anterior part of the head.

Several species of *Therapon* (*Terapon*) occur in the Diamantina and Cooper, and these "bream" can be expected to be carried into the Eyrean region as a result

of floods. *T. percoides* and *T. unicolor* are between 6 and 7 inches in length and weigh about half a pound. *T. zvelchi* and *T. barcoo*, from Cooper's Creek, are 8 and 5½ inches respectively (McCulloch and Waite 1917, 472, 475). The latter is allied to *T. hilli* from Queensland streams, and the former to *T. bidyana* (teheri, bidyan) of the Murray basin. The Pandi natives did not distinguish between the two kinds of *Therapon*, warri being applied to both. Multa-multa is applied by the Dieri to *Therapon* spp. because these fish soon become soft (multa) after death; they are the least favoured of all local fish (T. Vogelsang).

The 'bone fish' of Howitt (kirapara, ngamparu, namba) is the bony bream which occurs sometimes very abundantly in streams and waterholes in Central Australia. The species in the Finke and Eyrean regions is *Chatoessus* (= *Nematalosa*) *horni* (interpitna of the Aranda, Spencer and Gillen 1899, 650). Mr. Vogelsang informs me that this species is the commonest in the Dieri region where it is called paru, this term being also a general one for fish. *Nematalosa crebi* (tukari) is common in the Murray basin.

Roth (1897, 96) stated that in the Georgina and some other creeks, aborigines groped carefully in the mud and caught a kind of catfish. This was probably *Neosilurus hyrtlilii*, which has a wide distribution in Central Australia, but according to T. Vogelsang is very rarely seen in the lower Cooper, even after floods.

Schürmann (1844) recorded the Pangkala ternus for a large number of fish (kuya) probably marine from Spencer's Gulf and in most cases not at present identifiable. Those mentioned in his MS additions are indicated by (MS) Pityurnu, fish scale; winni, windi, fish hook, same word for an angle. Kuya bidni was the name for Sleaford Mere because of the prevalence of fish there (p. 24). Unidentified fish are: kadlayini (kadla = tail); kadlayini murra, a small species; kakkaninye [kakka = head, hence presumably a large-headed fish, perhaps a flathead, *Platycephalus* spp.]; kallalla; kanalla kuya, a freshwater fish (MS) [there are very few creeks in the region; *Galaxias attenuata* is a possible identification]; kandalguru; karpatye or murtunya, a small blue fish; kurai [? mullet, e.g., *Myrus*]; kuralbo, a small fish; minggatta; munyarra, a small species; murtunyu; nemi or yalluyu; wclunnu; wirrinni; wornka; yalleki, yerilyeli; yunnuyu.

The following names were also mentioned by Schürmann (1844), and an attempt is now made to identify the fish: kalunu, whiting [*Sillago bassensis* or perhaps *Sillaginodes punctatus*]; kumbarra, vabmarra, groper [*Achoerodus gouldi*]; marrenye, snapper [*Pagrosomus auratus*]; murti, salmon [*Arripis trutta*]; ngaltai, barracouta [*Thysites atun*]; pullamba, "a small crustaceous species of fish," also "porcupine grass" [the fish is probably *Allomycterus jaculiferus*, but may be *Diodon holocanthus*; the latter was reported by Waite to be rare in South Australian waters, though its characteristic swim-bladder was often found on beaches after rough weather]; purrelli, "hedgehog fish," "any crustaceous species of fish" [*Atopomycterus nichthemerus*, globe fish]; wallilli, cod fish [the term cod is applied to several species in South Australia; the Murray cod may be ruled out as it is restricted to the Murray waters; a rock cod, *Physiculus barbatus* (belonging to the Gadidae) occurs in our gulfs; the term rock cod is also used commonly for some of the gurnards, more especially *Scorpaena cruenta*].

Fishing net—Jama D, Gatti 1903, 117; minda Nj, mindi Nj, jama D, Berndt and Vogelsang (1941, 7); peerly Ya, Salmon 1886, 24. Methods for catching fish: Bi, Fraser 1886, 378; Schürmann 1846; 1879, 218; Wilhelm 1861, 175; 1862, 15; Duncan-Kemp 1933, 121-122, 148, 150. The last-named author (p. 147) referred to the drying and pulverising of fish obtained from permanent waterholes, this crude "fish flour" being ground up along with seed from a barley grass, katoora, the latter being indicated by Roth (1879, 91) as *Sporobolus actinocladius*.

This fish-flour was used for ceremonial purposes. Roth also illustrated various methods of using nets to catch fish (fig. 220-225).

ELASMOBRANCHII

Sharks—Schürmann (1844) reported the following Pangkala names of sharks from Spencer Gulf: kadalyili (p. 9); konye (18); piri manka, dogfish (57) (piri = enough, manka = dots or scars); wolgarra (75). In a manuscript addition to his vocabulary Schürmann mentioned kattalyilli (apparently the same as kadalyili) as a dogfish. *Heterodontus philippi* (*portus-jacksoni*) is commonly called dogfish in the two South Australian gulfs, and is marked with several obvious coloured lines or blotches. There are at least two other local sharks called dogfish, and these are allied to the dogfish of European waters—*Squalus fernandinus* and (less commonly) *Scymnorhinus licha*, but these are not spotted or striped. The term piri-manka suggests a shark with numerous spots, e.g., one of the carpet sharks (*Orectolobus* spp.) or one of the small cat-sharks, *Parascyllium* spp. or *Halaclurus* spp. The last genus is regarded as a synonym of *Scyliorhinus*. Piri-manka is more likely to be *Scyl. vincenti*, while kadalyili may be *Squalus fernandinus*.

Reference was made earlier in this paper to the probable error regarding Berndt and Vogelsang's record of ngakula Nj as a whale, instead of a shark, nakudlo being the term applied to the latter by the neighbouring tribe along the Murray River.

Rays—Minna Pa, a kind of stingray, Schürmann 1844, 32. In his MS additions he recorded karna as a stingray which attacked men with the spike on its back [the species was *Dasyatis brevicaudatus*, a large form, armed with a long caudal spine, and one which commonly enters shallow water. The latter is the only true stingray likely to be met with by the aborigines whose fishing was done by standing in shallow water, the other known South Australian stingrays being inhabitants of deep water]. Amongst the other rays likely to be encountered by them were *Rhinodon philippi* (shovel-nose ray), and the skate *Raja australis*. Since the latter has spines along its middorsal line, it may be Schürmann's minna, though it is not a stingray. The eagle ray, *Myliobatis tenuicaudatus*, is probably not sufficiently common in shallow water for a native name to have been attached to it by the Pangkala. Schürmann, in his MS additions, mentioned pidnu Pa as the "fiddler fish" [i.e., *Trygonorrhina fasciata*].

ARTHIROPODA

CRUSTACEA

Freshwater crayfish or yabbie—The small smooth-bodied crayfish of Australian rivers and waterholes were generally regarded as belonging to one widely distributed species, *Parachanna bicarinatus* Gray, while the larger spiny forms from mainland streams were popularly called lobsters and identified as *Astacopsis serratus* (Hale, Crustaceans of South Australia, Adelaide, 1927, 72-77). Miss E. Clark studied these crustaceans from numerous Australian localities and showed that there were many species included under those terms (Mem. Nat. Mus., Melbourne, 10, 1936, 5-58; 12, 1941, 31-40). The yabbie from the arid regions was determined as *Cherax destructor* Clark. These crustaceans are sought for as food by the aborigines.

Curr's correspondents (1886) supplied the following names for lobster or crayfish, but the two latter terms apply to only one kind (the yabbie) in the region under review. Koonkideri A, Warren and Hogarth; koonkoodirri N, Paull; koonkooderie N, Cornish; kurnkuderri D, Jacobs; kurukudirri (? error for kunkudirri) A, Jacobs; kuniakundri D, Gason; kidneykooderi Ya, Cornish. Buggila

Wk, Myles; boogali B, Sullivan; boagalli Wa, Crozier. Unde Kw, Anon. Muracuru Wa, Crozier. Unpurra Wa, Dewhurst; thoombur Ku, Heagney; thornabun (? misspelt) Kg, Heagney. Thandoola Te, Sullivan and Eglinton. Wolkoo Nu, Valentine. Narraminyah Ya, Salmon. Thinta Te, Foott. Kutera Ma, Morton. Trunagi Ky, Machattie.

Other references are kooniekoondie D, Gason 1879, 287 (same term used for scorpion); koonta Ka, Wells 1894, 520. We received the term kunku-derri N, W, at Pandi and were informed that yabbies were always cooked before being eaten. After cooking they were termed kungkuderri waina.

Spencer 1896, 60; 1896a, 229, 244, referred to the presence of *Astacopsis bicarinatus* (illya-amma of the Aranda tribe = *Cherax destructor*) in waterholes along the Finke, Macumba, etc., which drain into Lake Eyre. It was much appreciated as an article of food by the natives. Stirling (1896, 53) referred to the relative edibility of the crayfish and the local freshwater crab. The freshwater crayfish (or crawfish) was termed by the Adelaide tribe kongula (Williams 1839; 1933, 60; Wyatt 1879; 1933, 30) or kunggurla (Feiche'mann and Schürmann 1840; 1933, 108). Schürmann (1844, 21) gave the same term, kunggullu, as the Pangkala name for a crayfish and a marine crab.

Parathelphusa transversa Martens. Freshwater crab—A small burrowing species occurring in streams and waterholes in the arid parts of Australia, and capable of surviving through periods of drought by living like the crayfish in a burrow a few feet below the surface. It was figured by Hale (Crustaceans of S. Aust., 1, 1927, 154). Its use by the natives on the Finke was reported by Schulze. Spencer (1896, 60; 1896a, 229, 245) mentioned its presence in the rivers and creeks west and north-west of Lake Eyre. It occurs in the lower Diamantina, where it is eaten raw; we received the term koranti N, W, for it. Berndt and Vogelsang 1941, 5, reported jilaki Nj and kung-kutiri D as being a crab, but the latter term is the same as that listed above as belonging to the crayfish. Horne and Aston's reference (1924, 50) to freshwater crabs, six inches across and occupying burrows containing each a couple of gallons of water, must relate to the crayfish, since the carapace of the crab is only an inch and a half in length. The term "land crab" has been used in south-eastern Australia, according to Morris (Austral English, 1898, 106), for the smallest kind of burrowing crayfish, *Engaeus fossor*, which has habits similar to *Parathelphusa* and retains a small quantity of water in the bottom of its burrow. The work of Smith and Schuster (P.Z.S. 1912, 144-127) and Miss Ellen Clark (Mem. Nat. Mus., Melbourne, 10, 1936, 37-54; 12, 1941, 37-40) has indicated that many species of this and related genera occur in Australia. Mrs. Duncan-Kemp (1933, 92) referred to holes formed by edible crabs and containing up to six quarts of clear water.

ARACHNIDA

Scorpion—Kunickoondie D, Gason 1879, 287 (same term used for crayfish); katnibumi D, Gatti 1930, 118. The habit of the local scorpion along Strzelecki Creek was referred to by Waite (in Lea 1917, 490). Mr. H. Womersley informed me that the species collected by Waite was *Urodacus* sp. Kattarna Pa, Schürmann 1844, 17.

"Tarantula" spider—Murunkura D, Gason 1879, 287; — D, Gatti 1903, 120. Mr. Womersley informed me that the so-called tarantulas of the Far North of this State were Sparassidae, almost certainly species of *Isopeda*. Rainbow (1917, 485) recorded three, *I. dolorosa*, *horni* and *gloriosa*, collected by Waite during the Museum Expedition to the Cooper's Creek. Hogg (Horn Exp., Rep. 2, Zool., 340-342) recorded several species of the genus as having been taken between Oodnadatta and the Macdonnell Ranges, chiefly near the former locality. Mr. Vogelsang informed me the Dieri term meant crawling, a crawling creature; mara

= hand, ukura = leg, referring to the use of both by a child when crawling. Berndt and Vogelsang (1941, 9) reported that a trapdoor spider from the Ngadjuri territory was arambura, and marankara D, was stated to be the black spider, but T. Vogelsang informed me recently that the latter Dieri name was sometimes used as a general term for spider but was more usually applied to the trapdoor spider, *i.e.*, Gason's "tarantula." Schürmann (1844, 14) reported kara Pa as a "tarantula" and kara yalga Pa, as a cobweb.

Latrodectus hasselti. Black spider ("red backed")—Gason 1879, 287, reported that the "black spider" was koonickoonierilla, D. Rainbow (1917, 485) recorded it from Cooper's Creek, and Hogg (Horn Report, 2, 1896, 322, as *L. scelio*) from the Macdonnell Ranges. Berndt and Vogelsang (1941, 9) reported that spider web was waku-ngungura and that the black spider was waku Nj, and marankara D; but the latter was applied by Gason to a trap-door spider. We received the name murra-ngura N, W, for *Latrodectus* at Pandi, where its bite was stated to cause pain lasting all day. Perhaps mutta-na Ka, Wells (1894, 521), a spider, may refer to the same species. Mrs. Duncan-Kemp (p. 270) reported that the aborigines in her district applied a warmed poultice of mashed vine leaves in cases of bites by this spider. T. Vogelsang informed me that the red-backed spider, kapara of the Dieri, also called kana-geri, *i.e.*, man-like, was connected with some evil spirit. Children, especially the younger ones, were warned not to touch it or tease it, otherwise the associated evil spirit might cause various forms of itch and skin diseases or even death, and might poison edible plants and grubs, or even the water, and thus bring about starvation of the natives as well as bird life.

Other spiders—Pitchula D. Gason 1879, 287; pitjila D, T. Vogelsang, so named because it lives under bark; pitji = bark, la = from: the same term was applied to a gecko. Muta-na Ka, Wells 1894, 521. Koto DK, a rather large, grey-brown trapdoor spider with a pinkish tinge, a burrower in the sand-hills, where it was preyed on by goannas (karapara), Duncan-Kemp 1933, 62. This spider is probably the same as that recorded by Roth (1897, 35, 5) as ko-po of the Pittapitta, and kurra of the Karanya tribe.

Itch—Wittcha D. Gason 1879, 282-283. A papular eruption which was extremely irritating and very contagious, and made its appearance each year, was attributed by Gason to the general want of cleanliness and the presence of so many mangy dogs. There is no evidence to indicate whether it was an impetigo or was due to scabies. The former is much more probable and may be accentuated by some seasonal dietary deficiency.

MYRIAPODA

Centipede—Thinga-thinga Ya, Salmon 1886, 24. Thiltharie D. Gason 1879, 287, a species reaching seven inches in length. Mr. Womersley suggests that this may be *Scolopendra subspinipes* Leach, which is common in the drier parts of this State. Hale and Tindale (1925, 58) reported that all centipedes were termed wange jeri by the Wailpi.

INSECTA

ORTHOPTERA

Grasshoppers—General term: pindrie D. Gason 1879, 287; wichirika Wp, Hale and Tindale 1925, 58; pitji-ilki Nj, pindri D, wichirika Wp, Berndt and Vogelsang 1941, 6; nindabarrie Pa, Schürmann 1844 (MS). Waite (1917, 418) referred to two unusual locusts (*Brachytettix*, figured by Lea 1917, pl. xxxiii, fig. 1-3; and *Eremobia*) obtained in the Cooper's Creek region.

Thorodia melanoptera. Mantis—Wulungara Wp, Hale and Tindale 1925, 58. Mantis (pindie, mootna DK) are roasted on hot stones and eaten. Duncan-Kemp 1933, 61. Howitt 1891, 39, reported wadnamata An, insect, as a totem; wadna = digging stick, mara = hand, so perhaps the insect may have been a mantis

(because of its stick-like raptorial limbs) or a cricket because of its digging feet. In 1904, 92, he recorded wonamara W. as a caterpillar.

Cockroach—Irebilye Pa, Schürmann 1844. 8.

ODONATA

Dragonfly—General term, witu witu Wp, Hale and Tindale 1925, 58; kuyurkuru Pa. same term for stick and hornet. Schürmann 1844, 24.

ANOPLURA and MALLOPHAGA

Pediculus humanus. Louse—Pir-di Ka, Wells 1894, 521; this seems to be the same term as that (purdie) given by Gason for a grub. Kudlu Pa, Schürmann 1844, 18; kooloo Pa, Beddome 1886, 133; gudlu Nj, kata D, Berndt and Vogelsang 1941, 7. Kata N, W (head and body lice); this term was obtained by us at Pandi. Strehlow 1908, 67, recorded kulu (Loritja) and ita, itja (Aranda) as terms for louse. We obtained the names kulu (Yankundjajara) and chita (Pitjandjara) in the Musgrave Ranges. Kata D, Fry 1937, 198. Kutta D, lice or vermin, Gason 1879, 299. Kuttanylpa D, lice or nits (presumably *P. humanus*), Gason 1879, 299; nulkonya Pa, nits or lice, Schürmann 1844, 40.

Phthirus pubis. Pubic louse—The terms witja N, and i-da (ceda) W, were obtained by us at Pandi.

Mallophaga on birds—Paia witja N, W (paia = bird), was the name given at Pandi. Kurra D, Gason 1879, 299, vermin on animals. Warukati kata D, emu louse, Fry 1937, 198.

Itch, due to insects—Witja N, W, at Pandi; same word as Gason's wittcha D.

HEMIPTERA

Cicada—Waldamburri Wp, Hale and Tindale 1925, 58; wutnimmera A, Spencer and Gillen 1899, 60, 114 (totem).

Lerp (Psyllid) from *Eucalyptus oleosa*, edible, owaree (au-ari) Wp, Cleland and Johnston 1939, 176; the species was probably *Spondyliaspis eucalypti* Dobson.

Schürmann (1844, 76) reported that worta pala was a "small obnoxious insect" (worta = stump or stem); in view of the scanty information, it is not possible to suggest any identification, unless it be some kind of plant bug.

COLEOPTERA

Pan beetle—Howitt (1904, 91) called the species *Helacus perforatus*. This Tenebrionid was reported by Howitt (1904) as a totem animal, dokubirabira D (p. 91), Yu (92), N (94), Ya (95), and amongst tribes north-easterly, and easterly from Lake Perigundi along the Cooper (96). *Helacus perforatus* Latr. is the type of the genus and was described from King George's Sound, Western Australia, according to Masters (P.L.S., N.S.W., 11, 1886, 324). Macleay did not mention it but stated that most known species occurred in Western, South and Central Australia and were generally inhabitants of the dry, barren plains of the far interior (P.L.S., N.S.W., 12, 1887, 514). Blackburn (Trans. Roy. Soc. S. Aust., 23, (1), 1899, 35-41) referred to the various species, including *H. perforatus* and *H. interioris* Macleay, the latter from Central Australia and from the Darling River. Carter (P.L.S., N.S.W., 35, 1910, 90), whose material was collected at Perth, mentioned the distinguishing characters of *H. perforatus*. Lea (1917) referred to many species of the genus but mentioned only one, *H. interioris* (p. 579, pl. xxxvi, fig. 79), as having been collected in the area by the South Australian Museum Expedition, but the locality was not stated. Blackburn (Horn. Exp. Rep., 2, 1896, 275) mentioned two species from the Finke

region, but neither of the two referred to above is included. It is almost certain that Howitt's dokubirabira was *Icterus interioris*. Pullipullilbi Pa, beetle, pulli = fat, Schürmann 1844, 60.

Coleopterous larvae—Many of these, more especially those of longicorns and the larger buprestids, are eaten. The various references usually do not distinguish between larvae of beetles and of Lepidoptera; they have been collected into a later part of this paper.

LEPIDOPTERA

White butterfly, *Delias aganippe*; arlevilivilvi Wp, Hale and Tindale 1925, 58.

Butterfly, kala-pinka-pinka N, W, term obtained at Pandi; pilyilye Pa, Schürmann 1844, 56.

Hawkmoth, *Deilephila livornica*, wulga Wp, Hale and Tindale 1925, 58.

Moth, mi-atta Ka, Wells 1894, 521.

Teara contraria. Bag moth—Caterpillar web, pang-a yakuta N, W, term obtained at Pandi; yakuta N, W = bag. Yet-an-na Ka, Wells 1894, 519, = bag. The common presence of the conspicuous webs or "bags" of this moth on the twigs of *Eucalyptus microtheca*, *Acacia* spp, *Cassia* spp, but rarely on *Eucalyptus rostrata*, was referred to by Spencer (Horn Exp. 1896, 44-46), who published an illustration. We obtained the term wang-ga at Ooldea.

HYMENOPTERA

Native bee, stingless (? *Trigona* spp.), mitji-mitji Nj, muntju-runtju D, both terms also applied to blowfly, muntju = fly, Berndt and Vogelsang 1941, 4.

Teulon (in Curr 1886, 206) mentioned a method used by the Barkinkji (Darling River tribe) for tracking native bees (tintee-noora). Having caught a bee which had settled, a tiny piece of down was attached to its back by using the milky juice of a plant (Euphorbiaceae), and thus the insect would have its flight retarded and would also be more easily seen by the pursuing native in search of honey.

"Hornet," kuyurkuru Pa, Schürmann 1844, 24; same word for dragonfly or stick, kuyuruku = slender.

Iridomyrmex spp. Pissant, urine ant.—Wipa, ngari Wp, Hale and Tindale 1925, 58; kumburunya Pa, kumbu = urine, Schürmann 1844, 20; moonnee, Teulon 1886, 193.

Myrmecia forficata. Bulldog ant—Aldu Wp, Hale and Tindale 1925, 58; ardu Nj, aldu Wp, Berndt and Vogelsang 1941, 4.

Black ant (? *Camponotus* spp.)—Wipa Nj, mirka D, wipa Wp, Berndt and Vogelsang 1941, 4; wipa Pa, ant, Beddome 1886, 133; wipa Pa, Schürmann 1844, 73; mirrka D, Gason 1879, 300; kadio Pa, a large black species, lion ant, Schürmann 1844, 9 [probably intended for "ant lion" (Hymenoptera)].

Other ants—Schürmann (1844, 16) reported the following terms: Karrul-yuru Pa; mita Pa, a species whose grubs are eaten (33); manya, mito pulyo Pa, ant grub (27); bokalla, bokalla wipa Pa (3); kuyanna, "male grub" of the mita ant, which is not edible and is separated from the female, bidlyo, by winnowing (pp. 2, 24)—this is probably the species of ant referred to in later paragraphs. Berndt and Vogelsang (1941) mentioned the following: green ant [? *Chalco-ponera* sp.], muni Nj; winged ant, wipa Nj, katjiriri D; winged ant-hole, wipa-junta Nj, wipa-wadlju Nj, karjiriri-minka D (minka D, wadlju Nj = hole). Stirling and Waite 1919, 117, toa 22, W, indicated pijara as an ant-hill. Ant, paridan Wo; ant path, paridi kadi Wo (kadi = path or way), Howitt 1904, 792. Merri-ka Ka, Wells 1894, 519 [same term as mirka]. Tecta, Duncan-Kemp 1933, 202; leaves

of a creeping plant (which Johnston and Cleland 1943, 171, suggested might be *Centipeda Cunninghamii* or a *Chenopodium*, 1941, 4) were placed around camps to drive off these little black ants; the term naiari was applied to these ants, as well as to *Moloch horridus* which feeds on them (p. 64).

Mrs. Duncan-Kemp (p. 117) also mentioned that native women collected seed-food (munta) from ant nests. We observed a similar method at Macdonald Downs, Central Australia. Wheeler described a harvesting ant, *Monomorium* (*Holcomyrme*) *whitei* from the Musgrave Ranges, and illustrated its "nests" (Trans. Roy. Soc. S. Aust., 39, 115, 807; pl. lxxv). Schürmann (1846; 1879, 214) reported that large white grubs found sparingly in ant hills about September along with the very numerous small red insects were eaten by the Pangkala after having been sorted out by placing the mass (containing earth and insects) on a large piece of bark (yuta) about 4 feet long and 8 to 10 inches wide. The material was thrown up repeatedly and caught in the yuta, which was held in such a way that the heaviest portion became sorted out towards one end, the lightest towards the other, and the grubs in the middle part. These living grubs were then wrapped in a clean dry grass and chewed and sucked until all nutriment was abstracted.

Cudmore (1894, 525) referred to a small horde which lived in the mallee near Popiltah Lake, close to the border between South Australia and New South Wales and just north of the Murray. This horde ate cats, presumably feral, and black scrub kangaroos (*Macropus melanops*) but not rabbits. They also were very fond of "white ants (or ants' eggs)," using a koolamon or sheet of bark about 2 feet long and 6 to 8 inches wide as a kind of sieve for shaking the ants out from the earth; the insects were then slightly roasted by placing the koolamon on the hot ashes. Tindale (1941, 81) mentioned this small group of natives as the Nanja horde (Cudmore had stated that its leader was Nonnia) of the Maraura tribe, which he stated had become extinct.

The two accounts do not quite agree and there could be some doubt whether the insects were termites or true ants. Mr. Womersley suggests that they are more likely to be true ants, the white organisms being the puparia. Taken in conjunction with Schürmann's remarks (1844, 2, 24) earlier in this section, it is practically certain that they all relate to the same kind of ant.

Mclophorus inflatus. Honey ant—Honey used by natives in mulga country and commonly called "sugar bag" and "wild honey" (not to be confused with that from native bees, *Trigona* spp., though the same term, according to Mrs. Duncan-Kemp 1933, 96, is applied to both). *Eerumba tecta* DK, Duncan-Kemp 1933, 259, teeta = ant; nest described; habits p. 260; this name resembles the Aranda term, yarumpa, mentioned by Spencer and Gillen 1899, 186, 657. Judging from a remark by Mrs. Duncan-Kemp (*l.c.*, p. 116) nooroo, the "blubber-like parasitic ant" from the sandhills is probably the same species. The same author (p. 76) mentioned that natives mixed ant-honey with diluted nectar from baubiniacs and permitted the mixture to ferment for eight or ten days to produce a semi-intoxicant. Froggatt (Horn Exp. Report, 2, 1896, 385-392) published an account of the Central Australian species (under the old name, *Camponotus*), and Spencer (1896, 87-88) referred to them. Roth (1897, 93) mentioned other methods of finding honey by the Pittapitta, and stated that green ants were eaten by the Mittakoodi.

DIPTERA

Mosquito—Curt's correspondents (1886) supplied the following terms: Kunnutyullu Pa. Le Souef and Holden; ooinya A, Todd; ueni A, Warren and Hogarth; kooinyee N, Paull; yoowinya N, Cornish. Koontee Ma, Morton; koonti Wa, Crozier; kunthi Kw, Anon; kondie Ma, Reid; koontie N, Paull — D, Gason; kunti D, Jacobs — Ya, Cornish — Wa, Dewhurst; koonti Ya, Salmon; gunte Ky, Machattie; coontee Wp, Phillipson; oontee Wp, Wills; oondee Wp, Phillipson.

Yoorie Wk, Myles; eurie Te, Sullivan and Eglinton. Coolie-coolie K, Kingsmill; gooley-gooley Pa, Green; gooleyrr Ja, Green; oolilie Wp, Gason. Oonawilli B, Sullivan; noonarully Te, Foott. Koioloro Pa, Beddome. Teepa A, Warren. Tudinna A, Jacobs. Pirtipupu W?, Jacobs. Mooroonga Pp, Eglinton. Noka Kg, Ku, Heagney; naka Bi, Curr. Nowwine Nu, Valentine; yuwunu Pa, Le Souef and Holden.

Other references are koontie D, Gason 1879, 287; koonti Ka, Wells 1894, 521; kunnu-tyullu Pa, Schürmann 1844, 21. We received the names, kunti N, and winje W, at Pandi.

Horne and Aiston (1924, 9-10) referred to the abundance of mosquitoes in the vicinity of the lagoon at Mungeranie where, according to tradition, a moora, wandering over the earth, came and camped there. The insects were so vicious that he scratched his forehead (mung) until it was sore and to avoid further attacks, sank into the ground—hence the name Mungeranie.

Teulon (1886, 190) mentioned that the Barkindji tribe protected themselves by smoking fires and by daubing their bodies with fish grease.

Sand fly. ? *Culicoides* sp.—Pittaboobaritchana D, Gason 1879, 287; kalalballa Pa, Schürmann 1844, 10. We were informed that it was called pitta-puparitji N, W, at Pandi. Gason (p. 303) referred to punga D, a small fly, hardly discernible, but capable of inflicting a sting as painful as that of a wasp.

Blow fly, probably *Neopollenia stygia* and *Calliphora augur*. Yappo Wp, Green 1886, 126; mitji-mitji Nj, muntju-runtju D, Berndt and Vogelsang 1941, 4 (same term as for a native bee, muntju = fly). We obtained the names koonka-murra N, and murra-multa W, at Pandi. It was termed duboora on Yorke's Peninsula (Kühl 1886, 145).

Fly—The following terms must relate especially to the very common troublesome small black bush-fly, *Musca vetustissima*, though some closely allied, but less common, species would be included. These flies invade the eyes, nose, ears and mouth and readily attack human sores, faeces and food, and are almost certainly responsible for transmission of various disease-producing organisms.

Curr's correspondents (1886) recorded the following names: Ooringoorie N, Cornish; oringore A, Todd; goongerri Ky, Machattie; wingeroo Wi, Dix; wingorlo Ma, Reid; ngurrinhurri A, Jacobs. Moonchoo Ya, Cornish, D, Gason; muncho Wp, Phillipson D, Jacobs; moonchow N, Paull; moondyoo Ya, Salmon; moonthooan Kg, Heagney; moonan Ku, Heagney — Bi, Curr. Mokinga Te, Foott; mooginger Te, Sullivan and Eglinton; mogundhoo Wk, Myles. Yoorgoori A, Warren and Hogarth. Yapoo Wp, Gason; yappoo Wp, Phillipson [same term recorded above for blow fly]; papou Nu, Valentine; buppa Pa, Green. Dritji W?, Jacobs. Girmun D, Jacobs. Thunpara K, Kingsmill; yoombara Pa, Sawers; yumbara Pa, Beddome; yumbarra Pa, Le Souef and Holden. Ulberu Wa, Crozier — Ma, Morton; ilburroo Wa, Dewhurst. Mooki Pp, Eglinton. Mongi Kw, Anon. Teulon (1886, 213) mentioned wing-oroo and mokay as names for the "eye-fly," Barkindji tribe; the insect is *Musca vetustissima*.

Other terms recorded for a fly are yapu Wp, Hale and Tindale 1925, 58; moonchoo Ka, Wells 1894, 520 — D, Gason 1879, 300; muntju D, Berndt and Vogelsang 1941, 4. We received the names muntju N, murri-murri W, for *Musca vetustissima* at Pandi, and munku for it at Ooldea. Yumbarra Pa, "common fly" Schürman 1844, 86, must refer to the latter also.

It is of interest to note that Spencer and Gillen (1899, 648) referred to churinga amunga as a stone churinga (sacred engraved stone or piece of wood) of the fly (amunga; manga of Strehlow 1908, 67, Aranda) totem, used for curing sore eyes. When we were in the Macdonnell Ranges in 1929 we received the term amunga for *Musca vetustissima*, which infests the eyes of those suffering from conjunctivitis.

"Horsefly" (probably Tabanidae)—Kunti Pa; pindapinda, a large species, Schürmann 1844, 21, 57, pinda = slow. Dumboola Kühn 1886, 145. Yorke's Peninsula.

Flesh-fly (? *Sarcophaga* spp.)—Kadlarti Pa, flesh-fly, maggot, Schürmann, 1844, 9, kadla = tail. Perhaps the term applies to various blow flies possessing a long ovipositor.

Flies, ? Hippoboscidae—*Ornithomyia* sp. seen on a cockatoo were termed paia pulka N, W (paia = bird).

SIPHONAPTERA

Flea (human, presumably *Pulex irritans*)—Yelbi Pa, Schürmann 1844, 83, "natives declared that the fleas were an importation by the whites." Koonkamurra N, W, the same term as that given for a blow fly, was received by us at Pandi as the name applied to a flea whether from man or some other mammal. Teichelmann and Schürmann (1933, 106) reported that the Kaurna called the [human] flea pindi kudlo (*i.e.*, European louse), the Adclaide natives maintaining that the flea was introduced by the whites.

The Pitjandjara and Yankundajara natives in the Musgrave Ranges gave us tildi as the term for flea; we observed *Ctenocephalus canis* and *Echinophaga myrmecobii* (a native species) on dogs and rabbits there, and the latter on an aborigine.

INSECT LARVAE

Many grubs or caterpillars are eaten, especially those from the larger moths and beetles. Certain galls are also edible, e.g., mulga "apples" (Howitt 1904, 791, Wo); the gall (cobboboo D) found on the boxtree, *Eucalyptus microtheca*, (Gason 1879, 288).

The term witjeti or witchetty (Spencer and Gillen 1899, 423) is used widely amongst whites for edible grubs. The native seems to have a special name for each kind, as was indicated by Strehlow (1908). Hale and Tindale (1925, 48) stated that the Wailpi recognised three kinds of edible larvae—caterpillars of a large moth, *Xyleutes*, were obtained from the roots of the red gum (wera), *Eucalyptus rostrata*; while larvae of different kinds of longicorn beetles were found in the sapwood of the main trunk and upper branches. They mentioned the name verti Wp, and stated the Wailpi called Mount Padawurta Verti warta and that Padawurta was obviously a corruption of the term (p. 57). There is another explanation, pa-di is a common term in the Eyrean region for grub and is the same as ba-ti (given by Berndt and Vogelsang 1941, 6, as the Ngadjuri word) or bardee (ba-di) of the natives of the Adelaide plains (Teichelmann and Schürmann 1933, 95); warta means root or base of a trunk, or the thick end (Gason 1879, 306), *e.g.*, tidna warta = thick end of a foot, *i.e.*, the heel. Verti warta and Padiwarta are thus two terms having the same meaning and apparently referring to the grub-like shape of the peak. This edible grub, wai-api Wp, from the roots of the red gum, was mentioned by Cleland and Johnston 1939, 176, but the same term (wyappi, yai-appi) was also obtained for seeds of trees (yappi = fruit).

Other references are padi D, bulkara bati Ng, grubs from sandalwood, Berndt and Vogelsang 1941, 6; mool-yi Ka, Wells 1894, 520; wakaree Ka, an edible grub from trees, Wells 1894, 517; purdie [pa-di] G, Gason 1879, 287, 303; paddi D, Eylmann 1908, 167; padi D, totem, Howitt 1891, 138; jadna Nj, kali-bili-bili, panga D, Berndt and Vogelsang 1941, 5; kuyakinka D, grubs from gum trees, M. Howitt 1902, 407; witchetty grubs, Duncan-Kemp 1933, 261. Johnston and Cleland (1943, 154) mentioned that a striped edible grub (padi D, W) occurred in the roots of *Cassia*. Mrs. Duncan-Kemp stated that parootra boonti was a small white edible grub from the wild broombush [probably also a *Cassia* = boonti].

Howitt (1904) mentioned several names, all totemic: muluru (witchetty of Spencer and Gillen) D (p. 91, 799), Ya (95); padi T (800), Wo (95); padinguru Yu (92); paringoro Kd, small grubs from trees (97); wonamara W (92), A (94); maruwali N (94); miri-miri, a maggot, T (800); ngampuru Yu (92). The last-named was called a fish, Ya totem (p. 95); one of these must be an error. Probably the latter is correct, since namba was called a bone-fish, Wilya tribe (p. 98), and paru = fish. Padi D, Fry 1937, 204, grub from grass, is dried and crushed or ground to a powder, this "grub flour" being termed paditurara. Schürmann (1844) reported the following Pangkala names: batta, a kind of grub (p. 2); kullilli, edible grub, of which four kinds were named, kullilli nunma, kullilli patta, kullilli yako and kullilli yulko (p. 20); manna, a ground grub (36); parti, grub, caterpillar (54) [same term, barti, bati, padi, used by tribes to the east and north-east].

MOLLUSCA

CEPHALOPODA

Nautilus (so called)—Pirra Pa, Schürmann 1844, 57; same term for moon and shell, probably because of the colour. The shell of the local paper nautilus, *Argonauta nodosa*, is sometimes washed ashore on South Australian beaches, and has been illustrated by Cotton, Handbook Mollusca S. Austr., 2, 1940, 464, fig. 450.

Cuttle fish—Yayardlu Pa, Schürmann 1844, 83. Cotton (*loc. cit.*) has illustrated the gladius of the various species of *Sepia* recorded as occurring in South Australian waters.

GASTROPODA

"Periwinkle" (from the Georgina, South of Bedourie), accishan Ky, Duncan-Kemp 1933, 45. Probably species of operculate gastropods, *Bythinella* (*Notopala*) or perhaps *Plotiopsis*, since the animals were stated to be snail-like, but with a hard reddish flap over the front. *Bithynia australis* and *Melania balonnensis* (= *Plotiopsis bal.*), widely distributed Australian species, were collected by the Horn Expedition (Tate 1896).

PELECYPODA

Centralhyria stuarti. Freshwater mussel—Usually termed *Unio stuarti*; widely distributed in Central Australia; much appreciated as food by the aborigines. Koorie D, Gason 1879, 287, 289; kuri D, Howitt 1904; koori Ka, Wells 1894, 521; kuri D, T, Stirling and Waite 1919, toa 38, 175, 201. Stones used for cracking shell food were called yerndoo DK (Duncan-Kemp 1933 48). Kuri D, Fry 1937, 201, a flat piece of pearl shell [probably *Melo* or *Meleagrina*].

The shell may be pierced and polished and attached by means of a string (spun from human hair) to the end of the beard, or suspended from the neck (Gason 1879, 289) as an ornament. It is also used to inaugurate the Dieri circumcision ceremony (Gason, *l.c.*, 286; Howitt 1891, 72; 1904, 656), when the shell is suspended around the neck of the one to be operated on. Such a shell was termed coorietoorooka or kuri-turuka by the Wonkanguru (Horne and Aiston 1924, 47, 159). Instead of the local mussel, prepared pieces of marine shell, *e.g.*, from the pearl shell, *Meleagrina* spp., or the large gastropod baler shell, *Melo* spp. (*Cymbium* spp.), are sometimes used. Horne and Aiston's fig. 36 indicates part of a baler shell. Spencer and Gillen (1899, 652) stated that such marine shells were converted into magic articles, lonka-lonka of the Aranda. Howitt (1904, 714) mentioned seeing amongst the Yantruwunta, suspended from the neck, a portion of a large univalve shell [? *Melo*] said to have come from the north. It is of interest to note that the great aboriginal trade route from north-western and west-central Queensland to the Flinders Ranges passed through the Eyrean region, Kopperamanna and Cowarie being very important trading centres before the white occupation of the area. Along this route passed weapons, shields, stone axes, red ochre, pitjuri and such shells as those of *Melo* and *Meleagrina*. Berndt and Vogel-

sang (1941, 8) stated that pearl shell [ornament] was termed makil-a Nj and kaldrati D.

Roth mentioned that *Unio* [*C. stuarti*] was a very common article of diet and recorded several names applied to it by the Western Queensland tribes, the Pitta-pitta and Wonkajera calling it tooroolka and toorooka respectively. Sanger (1883) mentioned the use of these mussels (*Anodon*) as articles of diet by the Dieri.

Fraser (in Curr, 1886, 378) stated that mussel shells, as well as flints, were used (by the Biria tribe) as cutting implements. Machattie (1886, 367) reported that these shells were utilised by the Karanya for scarring the arms and shoulders. They were used by Eyrean tribes for scraping rushes [*Cyperus* spp.] to obtain fibre for making rush string and nets (Horne and Aiston 1924, 62).

Gasou (1879, 296) reported that the Dieri called the rainbow koorickirra; kurikirra D, Gatti 1930, 101; no doubt because of the similarity to the iridescence of the inner surface of the mussel shell (kirra = boomerang or curved object). Berndt and Vogelsang (1941, 8) used the same Dieri term, kuri-kir-a, the Ngaduri equivalent being guring-i and the Wailpi, wuranyi.

Ostrea angasi. Oyster—Yallarta Pa, Schürmann 1844, 78. The name is obviously the same as Yalata, the township at Fowler's Bay. It was stated by me that that name was the native term for a mollusc resembling an oyster and occurring abundantly as a fossil near the original homestead of Yalata, and that the term probably applied to the cockle, *Arca trapezia*, which Tate recorded as a common Tertiary fossil there (Johnston, Proc. Roy. Geogr. Soc. S. Aust., 42, 1941, 41). Since *Ostrea* occurs also in the South Australian Tertiary, my earlier statement must be corrected to apply to *Ostrea*.

Unidentified molluscs.—Schürmann (1844) mentioned the following Pangkala names: markalla, a shell (p. 28); metullu, "a species of shell fish"; metullu pirra, a kind of shell [probably a white shell, pirra = moon or shell] (p. 31); ngarnkidi, a kind of shell used for peeling roots (p. 46); yultunna, shell (p. 86); kundo birra, large shells, spoon (p. 20) [apparently a shell which was used by whites as a ladle or spoon, e.g., a scallop or cockle]. Wilhelmi (1861, 171) reported that the Pangkala carried in their kangaroo-skin bags (nurti) a small shell which served as a drinking vessel.

ANNULATA

Leech (Hirudinea)—Mulu Pa, Schürmann 1844, 34. The species is probably *Limnoddella australis*, which readily attacks human beings.

NEMATODA

Nematodes which were being collected from the stomachs of wallabies in the Flinders Ranges were termed bodlilkalli by the Wailpi. The term probably applies to worms generally.

PORIFERA

Sponges—Schürmann (1844, 59, 82) recorded pulballa and yarruru as Pangkala names for sponges (probably marine). He also stated that munu (p. 36) was a venomous marine animal often found dead on the sea beach; perhaps the Scyphozoon Coelenterate, *Charybdea* sp., may have been the organism, as it is capable of inflicting severe stings if its tentacles should come in contact with people bathing or swimming. It occurs at times in numbers in the two gulfs and has been known to injure people there. *Physalia* is a possibility, but *Charybdea* is more likely to be the culprit.

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